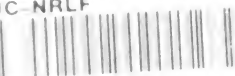


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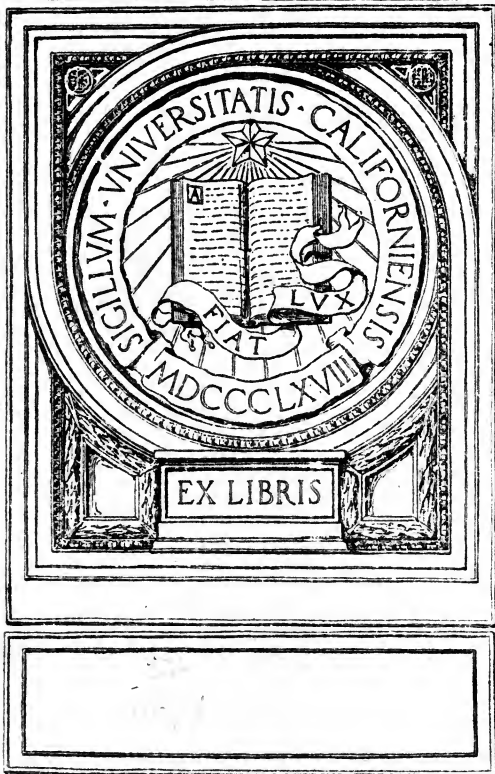


Stories of Exploration and Discovery

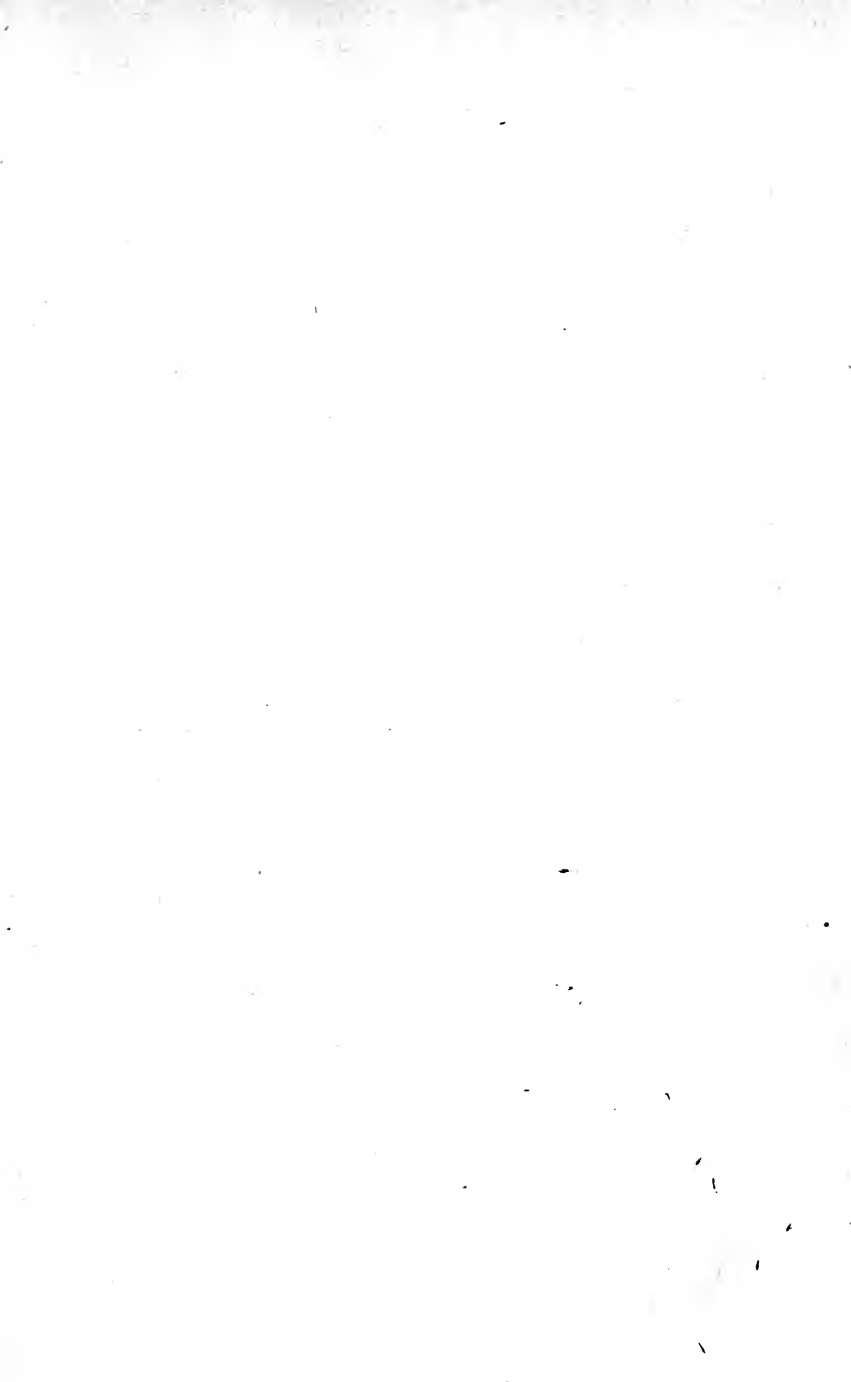


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STORIES OF EXPLORATION
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STORIES OF EXPLORATION AND DISCOVERY

BY

ARTHUR B. ARCHER, M.A. (Liverpool)

Second Master and principal Geography and History Teacher,
Holt Secondary School, Liverpool

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PREFACE

THIS little book is the outcome of several years' experience in the teaching of an original course on the History of Discovery. The course has been given to middle forms, and spread over two years' work, with a fortnightly lesson. This has been supplementary to the usual work in History and Geography, and the study of both those subjects has been found to benefit considerably. An aspect of human endeavour and progress that is often only lightly touched upon has received more adequate and connected treatment, with corresponding gain in interest. The course has afforded opportunities for the revision of World History and Geography, from a fresh point of view, but the chief value has been found to lie in the stimulus to wider reading on the part of the pupils. The short list of books appended to this volume illustrates the scope of such reading.

It has been difficult to choose, from the great mass of material available, just those stories which are at once representative and important in the general history of exploration, and interesting in themselves. The aim has been to preserve something of a historical outline, though necessarily incomplete, which may prevent the book from becoming merely a series of disconnected biographies, and may serve to illustrate the continuity of human efforts to solve the great problems of exploration. To the end of

the chapters on the Elizabethan seamen, the subject of World-discovery has been treated as a unity. Subsequent chapters deal with landmarks in the exploration of individual continents. This method has been found useful in practice.

The sketch-maps are intended to supplement a good physical atlas, which is indispensable for this subject. The maps have been drawn by Miss A. M. Gillett, to whom very grateful acknowledgments are due. Dr John Sampson, Librarian of Liverpool University, kindly gave facilities for the drawing of the first sketch-map, which is based on a portolano in his care. The author also desires to express his gratitude to Mr C. W. Bailey, M.A., at whose suggestion the book has been written, and who most kindly read the proofs and gave much helpful criticism and encouragement.

A. B. A.

LIVERPOOL,

May 1915.

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B.C.

- c. 770. Foundation of Carthage.
- 327. Alexander the Great in Asia.
- 55-4. Caesar in Britain.

A.D.

- 985. Eric the Red reaches Greenland.
- 1271-98. Marco Polo in Asia.
- 1316-30. Friar Odoric in Asia.
- 1415-60. Geographical work of Henry the Navigator.
- 1445. "Western Nile" reached.
- 1484. Guinea Coast explored, and Congo reached.
- 1486. Diaz rounds the Cape.
- 1492-1504. Columbus in the New World.
- 1493. Papal bull, dividing Spanish and Portuguese spheres.
- 1497. Cabot reaches North America.
- 1497-99. Voyages of Vespucci.
- 1498. Da Gama reaches India.
- 1500. Cabral reaches Brazil.
- 1513. Balboa views Pacific Ocean.
- 1519-21. Voyage of Magellan.
- 1521. Conquest of Mexico.
- 1524. Verrazano sails along East coast of North America.
- 1534. Conquest of Peru.
- 1534-42. Cartier explores the St Lawrence.
- 1540. Orellana descends the Amazon.
- 1553. Willoughby and Chancellor in Muscovy.
- 1562-67. Voyages of John Hawkins.
- 1576-78. Voyages of Frobisher.
- 1577-80. Drake's voyage round the World.
- 1583. Gilbert reaches Newfoundland.
- 1585-6. Davis searches for the North-west Passage.
- 1595. Raleigh sails up the Orinoco.

A.D.

- 1606-30. Dutch voyages on North, West, and South coasts of Australia.
- 1608-10. North American voyages of Hudson.
- 1612-16. Voyages of Baffin.
1615. Champlain reaches the Great Lakes.
1642. Tasmania and New Zealand discovered by Tasman.
- 1688 and 1699. Dampier's voyages to Australian coasts.
- 1768-71. Cook's first voyage (South Seas—New Zealand—East coast of Australia).
1770. Bruce discovers source of Blue Nile.
1772. Cook's second voyage (Antarctic Circle reached).
1776. Cook's third voyage (N.E. Pacific).
1789. Mackenzie's journey down the Mackenzie River.
1793. Mackenzie crosses Canada, to coast of British Columbia.
1796. Mungo Park reaches the Niger.
1801. Flinders sails along South, East, and North coasts of Australia.
1805. Mungo Park descends Niger to Bussa.
1829. Sturt's voyage down the Murray.
1840. Travels of Eyre in Southern Australia.
1840. Ross reaches the Antarctic Continent.
1845. Franklin's last Arctic voyage.
1856. Speke discovers Victoria Nyanza.
1870. Livingstone reaches Loanda, from Cape Colony, and descends the Zambesi.
1860. Speke and Grant reach Nile source in Victoria Nyanza.
1861. Stuart crosses Central Australia from South to North.
1861. Livingstone reaches Lake Nyassa.
1863. Baker reaches Nile source in Albert Nyanza.
- 1866-73. Livingstone's travels in Central Africa.
1874. Stanley descends the Congo.
1888. Nansen's first crossing of Greenland.
1893. Nansen crosses the North Polar Seas.
1901. Scott and Shackleton reach King Edward VII Land.
1908. Shackleton reaches $87\frac{1}{2}^{\circ}$ S.
1909. Peary reaches the North Pole.
1911. Amundsen reaches the South Pole.
1912. Death of Scott.

CHAPTER I

THE ANCIENT WORLD

When we look at an old map, like the one opposite, we are struck by its quaint inaccuracy. A great deal of it is mere guess-work. In place of details of the physical features of Abyssinia, for example, there is a drawing of Prester John, the mythical Christian king of that part of Africa. The actual map upon which the opposite sketch is based contains many names around the coasts of the countries shown, but there are few names elsewhere. This is partly because it is a sailor's map, but also partly because of lack of information. Later maps are fuller and more accurate, because men are continually filling in the gaps as the result of increased knowledge. There are few regions of which we do not now know at least the general features, and although much detail remains to be filled in, most of the greater problems in connection with the outlines of the world have been settled.

It is impossible to say when men first began to learn about the parts of the world beyond their own neighbourhood. The Ancient Hebrews certainly took a great interest in such matters, and had ideas on the form of the world, and similar problems. They considered the Earth to be flat, and the centre of the Universe. The ocean they supposed to be a stream flowing round the world. It must be remembered that in those days, when each nation supplied its own wants, there was little trade,

and consequently little travel, which might help to remove what now seem strange ideas.

The home of the earliest trading nations appears to have been in the north-east of Africa and in South-western Asia. The fertile region lying between the Tigris and the Euphrates was the home of the Chaldeans. Another great nation, that of the Egyptians, was settled about the delta of the Nile, so that the two countries were separated by a region of desert, which for a long time prevented any intercourse. Eventually, however, intercourse did spring up between these nations, a fact which is illustrated by accounts in Bible history, such as that of the journey of Abraham and his family from Chaldea into Egypt, and his return with a large company into Canaan. Another illustration is the story of the desertion of Joseph by his brethren, who first put him into a pit, and then sold him to a company of Ishmaelites who "came from Gilead, with their camels bearing spicery and balm and myrrh, going to carry it down to Egypt."

The Egyptians used boats on the Nile, and perhaps along the coasts of their country, but probably the first serious navigators were the people of Phoenicia. This country occupied a region along the coast of Syria. It was bounded on the east by a high desert, which hindered intercourse in that direction, except along definite trade routes. The sea, however, lay to the west, and on this the Phoenicians soon showed themselves to be able and venturesome.

During many centuries, from about 1500 B.C., they kept possession of the carrying trade of the Mediterranean, and added to their wealth by the sale of the purple dye which their country alone produced. Their boats sailed from the great ports of Tyre and Sidon north to the Black Sea, and Asia Minor, and west to the coasts of Greece, Italy, Gaul and Northern Africa. They traded east to

the Persian Gulf and south to Zanzibar. There seems little doubt that they even reached the shores of Cornwall, and the Scilly Isles, with which places they traded for tin. They made no attempt to build up an empire, but in some places there grew up Phoenician settlements which became important independent states. Of these the most important was Carthage, founded about 770 B.C. on the north coast of Africa, close to the modern town of Tunis. From Carthage many voyages were made westwards along the coast of Africa to beyond the Pillars of Hercules,



Homeric Ship

which was the name by which the two great rocks of Gibraltar and Ceuta, at the entrance to the Mediterranean, were known.

The Greeks, who inhabited both the east and west sides of the Aegean Sea, were very much interested in questions relating to the form of the world, and the general nature of its physical features. But the Greeks did not travel so far as the Phoenicians, although they made settlements, or colonies, in many lands. Greek colonies were founded on the coasts of Asia Minor, the

Black Sea, and along the northern coasts of the Aegean Sea. Others were founded in Sicily and on the coasts of Italy. Marseilles, near the mouth of the Rhone, was founded by Greeks. These colonies were all independent of the government of the mother-country, although all were bound together by such ties as a common religion, language, and a share in the great Games, which were held at Olympia, in Greece.

The Greek colonies were centres of trade, and merchants travelled from them in search of merchandise. In this connection one journey is of special interest, because it led to the discovery of the British Isles. In the fourth century B.C. the Greeks of Marseilles sent a famous mathematician named Pytheas to sail west beyond the Pillars of Hercules, to collect what information he could about the land beyond, so that trade might be opened up. He passed out into the ocean, and north along the coast to the Bay of Biscay. From here he sailed to Britain, which he reached at the coast of Kent. He examined a considerable part of the coastline, over-estimating its length, and then sailed to the mouth of the Rhine. Passing north he discovered what he called the land of Thule, which he described as being the most northerly land in the world, but the position of which is uncertain. He then returned across France to Marseilles.

The Greek thinkers of those days appear to have built their own ideas on the foundation of those of the Phoenicians. The earliest description of the form of the world in Greek literature is contained in the poems of Homer, where the world is described as being flat and round, with the great river Oceanus flowing round it, just as it had seemed to the minds of the Hebrews. In later days there were many famous Greek travellers, such as Herodotus, who was not only a traveller but a

nected with the Arctic Ocean, and he placed one long and unbroken mountain chain right across the centre of Asia from west to east.

When the Romans built up their great empire round the Mediterranean Sea they increased men's knowledge of the world to a great extent. There were not many famous Roman explorers, it is true, but under Roman rule there was a great increase in commerce. From Britain and Spain in the far west of the Empire, and from India and Asia Minor in the east, came valuable products for the use of the wealthy Romans. Anything which increases intercourse of this nature between widely-separated countries always tends to increase geographical knowledge. Moreover many of the Roman generals were keenly observant of what they saw. The great Julius Caesar, who went about much in Gaul, Spain, Germany, and Britain, wrote a series of books or "commentaries" in which he not only told of the doings of himself and his soldiers, but also described many of the geographical features of the countries which he visited. His account of the island of Britain, its shape, climate, productions, and inhabitants, is a good example of this side of his work.

In the first two centuries of the Christian era, many famous Greek and Roman students of geography flourished. Among these was Ptolemy, who believed that the Earth was a globe, and who drew a map of the world which was in use for many centuries. As a matter of fact it contained many errors. In those days it was a common practice to imagine the shape of those lands which had not been explored. Thus Ptolemy drew the Indian Ocean as an inland sea, with a great southern continent extending from the south-east of China to the coast of Africa. This continent, and the centre of Africa, were marked as being regions of desert, uninhabitable owing to the heat.

To sum up the state of men's knowledge of the world at the time when the Roman Empire began to decline, that is to say at the end of the fourth century, it may be said that the lands bordering the Mediterranean were well known, and fairly well represented on maps. The forests of Central Europe to the north, and the deserts of Northern Africa to the south, the Atlantic to the west, and the highlands of Central Asia to the east, may be taken as marking the limits of the known world. The coast of Asia as far east as Indo-China, and the coast of Africa as far as Zanzibar on the east and perhaps the Gulf of Guinea on the west, were fairly well known. The whole of the American continent, Australia, the north and east of Asia, the north of Europe, and the south of Africa, were quite unknown. Even in the case of the parts of the world which were known there was much inaccuracy, so that the work of the future lay in two directions. In the first place many details were added to existing maps which required filling in or amending, and in the second place vast areas of which men knew nothing as yet were explored.

CHAPTER II

THE DARK AGES AND THE VIKINGS

During the fifth century the Roman Empire was invaded by great numbers of tribes, most of whom came from Central Europe and the region north of the Black Sea. This is not the place to trace out the story of these movements, or to describe in detail how Vandals and Goths, Franks and Huns, journeyed from place to place, and in some cases settled down to form new kingdoms out of the western part of the Empire. It must be

noticed, however, that the movements of the tribes had great effects on Western Europe.

It is not to be supposed that these people were barbarians in the usual sense of the word, for many of them were highly intelligent and even cultured. In some parts of the Empire the tribes had been allowed to settle for a time, and in this way they had become civilized. This was the case with the Goths. Yet in spite of this the settlements of the new tribes checked the growth of such things as literature and art. Literature ceased to flourish as it had done in the days of the Empire, fewer fine buildings were erected, and such as were built were of an inferior type of architecture as compared with the work of the Romans and Greeks.

To students in later days this period from about 600 A.D. to about 1200 A.D. became known as the Dark Ages. It is not true that there was no progress in that period, or that no interest was taken in learning. The names of Alfred the Great and of Charles the Great will show that there were scholars of considerable learning even at that time. Yet, in comparison with the Classical period which had just passed, the Dark Ages seem a time of little progress, and almost deserve their name.

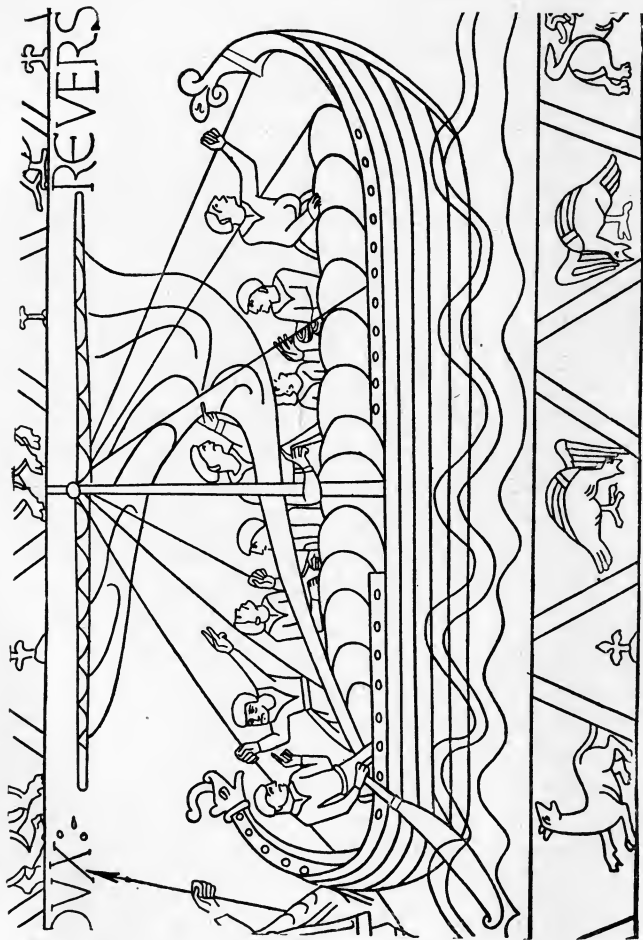
This lack of progress is shown most clearly in the failure of men to add much to their knowledge of the world beyond their own regions during that period. There was much travelling about Europe, but the spread of Mahommedanism, in the seventh century, almost entirely cut off Europe from the south and east.

Mahomet was a native of Arabia and spent the greater part of his life in teaching the Arabians to accept the Faith which he claimed to have been revealed to him by God. On his death, Mahommedanism spread through Syria and Asia Minor to the north, and through Egypt, Tripoli, and Marocco to the west. The Mahommedans,

who looked upon war against the Christians as a Holy War, even crossed the Straits of Gibraltar into Spain, beyond the borders of which they were checked by the Franks. Thus the south and east of the Mediterranean region was in the hands of a people who would not allow the Christians of Europe to travel in or through those lands.

As the Mahommedans themselves were too cowardly to face the dangers of seeking out new lands or risking themselves upon unknown seas, there was an end of geographical discovery in that part of Europe. Still there were other parts which were quite uninfluenced by the Mahommedan conquests. Far away in Scandinavia and Denmark lived the Northmen, or Norsemen. They lived along the shores of the "viks" or fiord-creeks of the coast. The mountainous and forbidding nature of the interior of their country drove them to the sea for a means of living. There was little room, too, in their native land, for all to live in comfort, and as some won power over their neighbours at home the more independent of these "Vikings" preferred to carve out a path for themselves. They were daring sailors, accustomed to a hard life, and absolutely without fear.

It was the custom of the Vikings to be buried on shore, in the ships which had borne them so often during their lifetime. Many of such burial-ships have been discovered in recent years, and we can tell what they must have looked like when on active service. There appear to have been two main types of ships, one being used for voyages near the coast or in calm seas, and the other for longer journeys into the stormy ocean. One of the latter kind has been described as being built of oak, and measuring nearly thirty feet long, and half that width, and having seats for sixteen pairs of rowers. There was a mast, to which was attached a sail of striking and varied



Viking Ship

colours. Along the gunwale of each side of the ship a row of shields was placed, painted black and gold. Both ends of the ship were richly carved, and stood high out of the water.

Rowing swiftly in their long boats, the Vikings made their way along the coasts of Europe and out into the Atlantic. At first they attacked the coasts of Britain and Ireland, Germany and France. They sailed up the rivers, at first to plunder and burn, but soon they began to make settlements in the lands they reached. Thus they settled in Normandy, which was so named after them, and in England and Ireland. It is said that one band sailed up a great river into the heart of Europe and founded the kingdom of Russia.

In their earlier voyages the Vikings had not gone far from the coasts of Europe, but in later days they became more venturesome. They made their way out into the North Atlantic, in spite of the dreadful storms for which that part has always been feared, and in spite of the complete absence of maps and charts which might serve to guide them. Stories are told of other travellers who had gone out into the great Atlantic in earlier days, but so little is known of their work that the brave Norsemen may be given the credit of being the first to do so. It is true that Irish hermits had been to the Faroes and Iceland, but as they were only in search of regions which might give them the solitude they loved so much, their visits had little geographical importance.

In order to follow the journeys of the Norsemen it is best to look at the map of the world on a globe. It will there be seen that the North Atlantic is not really so wide as it appears on an ordinary map. There is also a chain of islands stretching across from North-West Europe to North America. Thus may be traced the Orkneys and Shetlands, the Faroes and Iceland. From



Journeys of the Norsemen. The Mahomedan Lands in the Eighth Century

the latter to Greenland is only a short distance. The Norsemen passed on, step by step, from one point to another. Iceland became a centre for many of the hardy sailors of the North, and from its shores at length went the famous Eric the Red, who sailed away to the west in 985. Soon afterwards he returned to Iceland with the news that he had seen a wonderful new country, covered with verdure, and likely to prove an attractive place for any of his countrymen who might wish to settle there.

Eric gave the name of Greenland to this new land. He evidently knew nothing about the interior of the great island, or else he would not have thought it suitable for settlement, covered as it is with lofty mountains buried under eternal snow and ice. However, his account aroused great interest among the Norse folk. A large number of men and women set off in a fleet of boats to found a colony in this new land. Thus about 986 A.D. the first European settlement in Greenland was made.

In the year 1000 A.D. Leif, the son of Eric the Red, sailed from Greenland south-westwards towards a land which had been sighted by a number of the settlers some time before. The first part of the new land which was reached was barren and uninviting, and from the description given there seems no doubt that this was the coast of Labrador. Further south, however, they saw a land covered with woods, and at length they reached the island now called Newfoundland. They were delighted to find that this place had what seemed to them a very mild climate, for they were hardy men of the North. But their pleasure gave way to astonishment when, crossing the narrow channel which separated the island from the mainland, they found a beautiful country of great fertility, with rivers and lakes well stocked with salmon, and with *vinbaer*, or currants, growing in profusion. So they called the new land Vinland. This is probably the

land known as Nova Scotia. They had set foot on the continent of America nearly five hundred years before Columbus set out on his great voyage.

Several expeditions were sent out from Greenland for the purpose of colonizing Vinland, during the next few years, but the difficulties in the way of success were great. The Indians, or Eskimos, fought against the settlers, and there were quarrels among the Norsemen themselves. Moreover, by the beginning of the fifteenth century, even the original settlers on the coast of Greenland came to an end. The climate was very trying, and the Eskimos were hostile. Thus the clouds settled down once again on the American continent, to be lifted nearly a hundred years later by Columbus and his followers.

It must be remembered that the Vikings were not merely sea-rovers who thought of nothing but plunder. They were often willing to open up peaceful trade with the lands with which they came into contact. This is well illustrated in the story of Ohthere, a famous Norse captain, who came to England and was patronized by King Alfred. The King took a keen interest in his work, and helped to send him on an expedition round the North Cape, and into the White Sea, in 892. As a result of this voyage a beginning of trade with Archangel was made.

Even in their settlements and conquests in the lands of Western Europe the Norsemen indirectly did a service to the cause of exploration, because they gave fresh vigour to the character of the people of those lands. Thus, for example, the English undoubtedly were the better for the mingling with the Vikings in the ninth and tenth centuries. It is certain that after those days the English were hardier and more inclined to enter on the paths of trade and commerce, and exploration, than they had been before.

CHAPTER III

ARAB TRAVELLERS—THE FRIARS—MARCO POLO

It was pointed out in the last chapter that the Mahommedans as a whole did little towards the work of exploration. This is specially true with regard to maritime discoveries. The Arabs, who were the most important of the Mohammedan people, looked on the world as being mainly a great area of land, with the city of Baghdad as its centre, and with the "Sea of Darkness" flowing beyond in all directions. So they would seldom risk themselves in ships, away from land, for they pictured dreadful horrors as being in store for those who should presume to do so. One Moslem, as late as 1390, declared that the Atlantic Ocean is "so boundless, that ships dare not venture out of sight of land, for even if sailors knew the direction of the winds they would not know whither those winds would carry them, and as there is no inhabited country beyond, they would run a risk of being lost in mist, fog, and vapour. The limit of the West is the Atlantic Ocean."

Nevertheless the Arabs knew a great deal about certain parts of the world. They travelled much about Asia, and the east of Africa. This is illustrated by the stories of the Arabian Nights, especially by the story of Sindbad the Sailor. It is not at all likely that an actual Sindbad ever lived, or even if he did it is certain that he could not have had the marvellous adventures of which the story is told. But there is no doubt that the places mentioned in his story, such as India, Ceylon, Burma, and Sumatra, the "Island of Apes," were well known to the Arabs. This is clear, because of the accurate descriptions which are given in Sindbad's story of the products, people,

and animals of those lands. Perhaps the story is really a gathering together of the stories of many travellers, with much that is imaginary added.

Besides its connection with the voyages of sailors such as Sindbad along the coasts of Southern Asia, this period is famous for the beginnings of travel between Southern Europe and Central and Eastern Asia. Before dealing with this a little may be said about the Mongols or Tartars.

Mongolia is a plateau region in the north-east of Asia. About the beginning of the thirteenth century the people of this country swept over China and conquered it. They then poured across the great plains of the North into Russia, and even invaded Hungary. At certain places they had permanent camps, one of the most important of these being on the river Volga. The Pope of those days resolved to send monks to try to convert the Tartars. The chief of the monks who went on this dangerous errand was a certain Friar John. He reached the camp on the Volga, and was well received by the Tartar captain or Khan. He was then told to proceed to the court of the Grand Khan, far away in Mongolia.

The Grand Khan gave the travellers no encouragement and they were compelled to retrace their steps across the thousands of miles of unknown country that lay between them and home. Yet they did not neglect to notice the pastoral habits of the Tartars, and their skill as craftsmen and warriors.

In the reign of Louis IX of France, or Saint Louis as he was called on account of his pureness of life and zeal as a Crusader, a friar named Rubruquis was sent to the court of the Grand Khan, with letters from the King requesting him to acknowledge the Pope and to become Christian. Rubruquis and his companions reached the Volga, after much difficulty, and then had to visit the court of the Khan of that district. They appeared

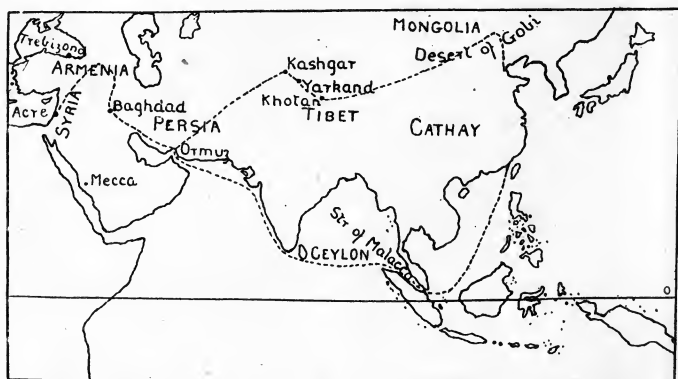
wearing their Church vestments, and bearing a beautiful Bible and Psalter. The books were taken from them, and they were allowed to proceed. After a long journey they reached the court of the Grand Khan, at a place to the north of the great desert of Gobi. All their efforts to convert this ruler failed, and the monks returned home to Europe about 1255, having spent nearly three years in their Asiatic wanderings.

One curious result of the journeys of the Christian friars and monks into Asia was that they discovered that Christianity already existed there in a certain form. They also heard of the existence of a Christian kingdom in the south-east of the continent, governed by a king named Prester John. Travellers often endeavoured to find this mysterious person, and more will be said in a later chapter about the search for him.

While the monks and friars were hard at work trying to introduce Christianity and papal authority into Asia, other men were working equally hard to extend European trade there. The leading part in this commercial intercourse was taken by Venice. Venice lay in a very favourable position for the work of a great seaport. Situated at the northern end of the Adriatic Sea, halfway between the western and eastern ends of the Mediterranean, it was also within reach of a pass across the Alps, leading to the valleys of the Rhine and Danube. Thus its merchants became more prosperous than those of any other city in Europe, for they handled great quantities of the riches of the East, which were exchanged for the products of Europe. The ships of the Venetians went to and from all parts of the Mediterranean, as may be read in Shakespeare's story of the Merchant of Venice. Moreover many Venetians undertook long journeys overland to distant states.

The most famous of all the Venetian travellers was

Marco Polo. About the middle of the thirteenth century his father and his uncle journeyed into the south of Russia. Wandering from there to the north-east they were eventually persuaded to travel to the court of Kubla Khan, far away in distant China. They were well received by the Khan, who asked them to take messages from himself to the Pope, requesting the latter to send a band of missionaries to convert the Tartars to Christianity. The Venetians returned to Europe, but the Pope was dead, and they had to wait until a successor was



Marco Polo in Asia

appointed. After a long delay they began their return journey to the Khan's dominions, in 1271. They took with them young Marco Polo, but they could only induce two friars to go. Even these gave up before they had gone far.

The three travellers started from the coast of Syria, and made their way through Armenia and Persia to the famous city of Baghdad. They then went on to the Persian Gulf, but returned through Persia to Afghanistan. They passed the famous trading centres of Kashgar, Yarkand, and Khotan and entered the dreary

desert of Gobi. They saw many cities which have long since been buried in the shifting sands of the desert. After travelling for three and a half years they reached the court of Kubla at the town of Shangtu in the Khingan mountains.

The Khan, who lived in a palace of marble, with "hall and chambers of gilt," again showed great favour to his visitors. He was especially interested in young Marco, who was rapidly promoted to positions of great importance. Marco was employed in travelling on behalf of the Khan into almost all the provinces of China, and he took care to note what he saw on his journeys. For seventeen years the Polos served the Khan faithfully, but on their requesting him to allow them to return home he refused to agree. He said he loved them too much to let them depart, and he could give them all they needed in the way of riches. At last a favourable chance of escape came. The Khan of Persia sent an embassy to Kubla, requesting the hand of the latter's daughter in marriage. The Polos were chosen to conduct the bride to her new home. They sailed down the east coast of Asia and through the Straits of Malacca. They crossed to Ceylon and then made their way to Ormuz. Leaving the Princess here they crossed overland to Trebizond, on the Black Sea, where they found a ship to take them back to Venice.

On their arrival in their own city the Polos found that people refused to believe they were the men who had gone away so long before. However when they showed the wonderful garments and jewels they had brought from the East the people doubted no longer. Some time after this a war broke out between the Venetians and the inhabitants of Genoa. In one of the fights, in 1298, Marco Polo was captured and put into prison at Genoa. While he was in prison he caused to be written

down an account of the great journey across Asia, and a description of the life of the subjects of the Khan. This book is full of interesting information and although there is no doubt that the details are sometimes imaginary, the main facts have been shown to be much as Marco Polo himself describes them.

Polo gives a full account of the Tartars. He says they “never remain fixed, but as the winter approaches remove to the plains of a warmer region, in order to find sufficient pasture for their cattle; and in summer they frequent cold situations in the mountains, where there is water and verdure, and their cattle are free from the annoyance of biting insects. During this time they pass on continually to higher ground, always seeking fresh grass, because their flocks and herds are too large to remain in one place. Their tents are moveable.”

The accounts of the various provinces of the Empire are very detailed, and show how advanced in civilization the people of those parts were. There was a splendid system of high roads, with posthouses or inns every twenty-five miles. At each of these stations four hundred horses were kept in constant readiness so that messengers of the Khan might have every help for rapid travel. At intervals of three miles were villages, in which were stationed foot-messengers. “They wear girdles round their waists, to which small bells are attached, in order that their coming might be perceived at a distance; and as they only run three miles, the noise serves to give notice of their approach, and preparation is accordingly made by a fresh courier to proceed with the packet instantly upon the arrival of the former.” Whenever possible the roads were lined with trees which were specially planted to give shade in summer and to point out the way when snow was on the ground.

There is not space to give details of the many

interesting things Polo tells of Japan and other countries of which he heard, or of his account of the coal, petroleum, and other valuable products which came to his notice during his travels. It was a very long time before any additions were made to what he had told. But the most valuable of his services was the romantic picture which he drew of the East, in his book. In those pages the wonders and beauties of that mysterious region stand out very clearly.

CHAPTER IV

PRINCE HENRY THE NAVIGATOR

With the end of the fourteenth century a new period in the history of exploration is reached. Hitherto, it will have been noticed, almost all the journeys of the travellers about whom mention has been made were carried out on land, with perhaps occasional voyages close to the coast. With the exception of the voyages of Hanno the Carthaginian and of the Norsemen of the ninth and tenth centuries, there had as yet been little attempt to venture on long oceanic voyages. After Marco Polo there were still great travellers who crossed vast tracts of land. Such was the famous Friar Odoric, who travelled from Venice in 1316, through Persia, India, China, and Tibet, arriving home in 1330. Such, too, was an equally famous Moor, Ibn Batuta, a native of Tangier, who left that town in 1324, with the intention of visiting Mecca, but who travelled altogether for 75,000 miles in Europe, Africa, and Asia before reaching home again twenty-eight years later. Yet the time was at hand when the general direction of exploration was to follow new channels.

In the long struggle between the Christians and the Mahommedans which is known generally as the Crusades, the dependence of the countries of Europe on the products of the East had become more and more marked. Nevertheless owing to the fact that all the trade routes were controlled by Mahommedans, who had overrun all the lands on the east of the Mediterranean and the north of Africa, the difficulty and cost of obtaining these products had become much greater. The ships of Genoa and Venice still visited the coasts of Asia Minor and Syria to receive the precious goods brought overland by the caravans, but it had become necessary to find some way of obtaining those products without paying the heavy tolls demanded by the Mahommedans. The leading part in this work was taken by Portugal, which had succeeded in freeing itself, by 1250, from the presence of the Moors, and which had already, by means of its intercourse with England and Flanders, done much to develop those maritime resources which its position at the meeting-place of the Mediterranean and the Atlantic gave it.

It was King John of Portugal (1383-1433) who laid the foundations of the maritime greatness of his country. He had married the daughter of John of Gaunt, Duke of Lancaster and brother of the Black Prince. King John had several sons, all of whom were as energetic as their father. Of these sons, Pedro and Henry were the ones who more particularly helped in the work of enlarging geographical knowledge. Pedro was a keen traveller, and in his wanderings throughout Western Europe he collected a great deal of information of a useful sort, partly in the form of notes of talks which he had with explorers and seamen, partly in the form of maps and charts. When his father died, and Pedro became Regent, he was ever ready to assist both with men and money the schemes of his more famous brother.

The most important feature in the early life of Henry himself was his contact with the Moors of North Africa. In 1415 he took part in the capture of Ceuta, a Moorish stronghold on the coast of Africa, just south of the Strait of Gibraltar. It was in this contest that he won his fame as a soldier, fame which caused his aid to be sought by a soldier so great as King Henry V of England. But more important still was the fact that he learnt much from the Moors concerning the lands to the south of the Great Desert, lands from which came great caravans laden with all kinds of valuable produce.

Prince Henry returned to Portugal, and on a lonely part of the coast near Lagos, at a point now known as Cape St Vincent, he began studying and teaching the art of navigation with a view to the work of discovery. To him came navigators from all parts. It was a time of much change in the methods of seamanship. The compass had been in use since the beginning of the previous century. By its aid voyages had been made further from the coasts than ever before. Moreover with more accurate seamanship had come more accurate mapping. Great numbers of what are known as "portolani" had been constructed, mainly by Italians (see page xii). These were an improvement on the old maps, which gave much that was only imaginary or legendary about the countries they represented. Henry collected as many of these maps as possible, and he set up a kind of nautical school. Mariners were here taught the use of maps and of instruments for deciding position and taking astronomical observations at sea. For years his captains came and went, going forth to test the theories which had been set up, and returning with reports of varying success. Their voyages were not fruitless, because even if a theory were proved false it was really so much more accomplished in the search for truth.

Now, it may be asked, what were the real objects of Prince Henry in this wonderful work? In the first place he loved discovery for its own sake. He desired to find a way, if such existed, round the south of Africa, partly because such a discovery would go far to remove from men's minds the great fear with which all men looked on the unknown and would help to solve the problem of the real shape of the world. But, again, Henry hoped that by the discovery of this route a new way would be found to India, a way which could be controlled by Portugal, and which would be free from the tolls and other drawbacks of the routes through the Levant. Finally, Henry was a devout Christian and as such he was anxious to do what he could to extend his Faith. To him, the Mahommedan and the Pagan were equally desirable objects of missionary labour. It is said, too, that he was anxious to find the mythical kingdom of Prester John, the mysterious king who was supposed to exist somewhere beyond the borders of the Mahommedan lands.

At his centre on the peninsula of Sagres, where he built "a palace, a chapel, a study, and an observatory," Prince Henry paid great attention to the building of an improved type of ship, known as a "caravel," in which long and dangerous voyages would be more possible. Between 1415 and 1430 voyages were made to the Canary Islands and Madeira, though these places had been discovered by the Genoese in the previous century. Yet the Portuguese claimed the discovery for themselves. One result was the planting of a Portuguese colony on the island of Madeira, with which place grew up a considerable trade in wood. Following these journeys numerous caravels were sent out to examine the coast of Africa beyond Cape Bojador, which had been looked on hitherto as marking the limit of possible voyages. It was generally believed that all sorts of horrors were in store for any

mariner who presumed to pass the "Jutting-out Cape." Beyond it lay "sea-serpents, unicorns, lurid flames, and a scorching sun," which made human life impossible. It was partly in order to show the folly of these notions that Henry was so anxious to win success. At last, in 1434, one of his captains doubled the cape, and found "the sea so easy to sail upon that it was like the water at home." There did not appear any signs of human life, but Henry found little difficulty now in persuading others to go further. In 1435 more voyages were made, the coast being followed for more than five hundred miles beyond Bojador. Signs of caravans were seen in places, and once it was thought a western branch of the Nile had been found, about the existence of which Henry had often heard from Moorish travellers. In reality Henry's ships had reached the "River of Gold" (Rio d'Ouro), and here an attempt was first made to capture a native.

The southern limits of the world as understood in the Middle Ages were now passed, and a new stage in world-knowledge was reached. In 1441 the White Cape (Cape Blanco) was passed for the first time, but it was the capture of natives which first led to real enthusiasm for the work of Prince Henry's captains. Some of the natives were ransomed by their friends for gold dust, "which more thoroughly won the Prince's cause at home and brought over more enemies and scoffers to him than all the discoveries in the world." As the ships went further south the signs of human life and fertile country became more frequent. At one point notice was taken of a number of natives coasting along seated on hollowed-out logs of wood "with legs over the side to serve as paddles." Unfortunately the craze for gold and slaves became so marked a feature of the Portuguese sailors that the majority of them lost sight of the original motive of exploration which had led Henry to send them forth.

Frequent raids were made on the natives who consequently learnt to fear and hate the Portuguese, who, they said, only desired to capture them in order to eat them. It seems strange that such work could be carried on by professed Christians, yet the Portuguese did not consider that slave-raiding was not in keeping with Christianity. Henry himself desired to educate the captives, but his men undoubtedly treated them with great cruelty.

In 1445 were first seen the palms (Cape Palmas) which marked the limit of the desert region, and soon the beautiful green headland of Cape Verde was passed. "Great was the wonder of the people of the coast in seeing the caravel, for never had they seen or heard tell of the like, but some thought it was a fish, others were sure it was a phantom, others again said it might be a bird that had that way of spinning along the surface of the sea." The reports brought back led to the sending of a great expedition in this same year, to open up trade, and to find, if possible, the Western Nile. Prince Henry had told them it could not be much further and soon they found a place where "the water was sweeter than that of the surrounding sea." This led them to the Senegal River, but the natives were hostile, so they returned. Perhaps the most important work done about this time was that of a Venetian, Cadamosto, who had entered the service of Henry, and who in 1455 and 1456 made voyages along the west coast, and entered into friendly relations with the natives of the Gambia River to which led caravan routes from Syria, Tunis, and Marocco.

The last important voyage in the lifetime of Henry was that of a certain Diego Gomez, in 1458, who went far enough south to hear of the existence of the great mountains of Sierra Leone, beyond which he was assured there were mines of gold. Prince Henry caused the

construction of a large map, on which was drawn a careful sketch of the world as known at the close of his period, and this was the first really scientific map, free from all imaginary details. The Prince had swept away the superstition which had prevented progress in exploration, and had shown what was possible by a combination of sound theory and fearlessness in practice.

CHAPTER V

BARTHOLOMEW DIAZ, VASCO DA GAMA, AND THE ROUNDING OF THE CAPE

When Prince Henry died, in 1460, he had not seen the full accomplishment of his desires with regard to the exploration of the African coast. Still he had shown the direction which future work might take, and his captains were willing and eager to follow up that work. Unfortunately the King of Portugal who ruled during the next twenty years was not inclined to do much to help on the work of exploration, though in spite of that fact some progress was made. In 1461 a certain Pedro de Cintra sailed into the Gulf of Guinea, coasting along its shores for 600 miles, and reaching the Bight of Benin. On this voyage he saw the mountains of Sierra Leone, so called because of the "lion-like growl of the thunder on its summits."

In 1471 Fernando Po discovered the southward bend of the coast and found the island which still bears his name. In the same year the Equator was crossed. None of the dreadful things took place which men had thought awaited those who crossed that mysterious line. The most noticeable fact appears to have been the change

in the stars that were visible. The North Star almost disappeared below the horizon, while the famous Southern Cross began to command attention.

The new King of Portugal, who succeeded in 1481, was as keen as Henry had been to win successfully the African coast for Portugal. He sent captains out with instructions to raise large crosses at suitable places, and to take possession of territory in the name of their country. Thus, in 1484, Diego Cao set forth and reached the mouth of the Congo, near which he planted a cross. The neighbouring chief was favourably impressed by the conduct of the Portuguese and treated them well. In a later voyage Cao brought a priest from Europe, and the chief was baptized, being the first Christian convert south of the Equator. In 1486, Cao reached what is now Waalvisch Bay, but he did not go far beyond, and it was reserved for another great mariner to reach the southern extremity of the continent.

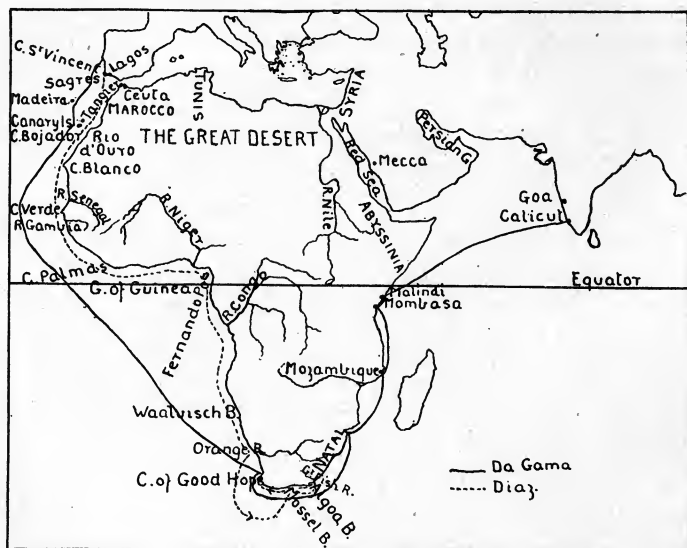
In 1486 Bartholomew Diaz left Portugal with three ships and under instructions to do all he could to solve the question of the extent of Africa southwards, and, as usual, to endeavour to find Prester John's kingdom. He followed the west coast of the continent until he reached the mouth of the Orange River. The currents and winds were here very strong and almost impossible to withstand. Diaz was driven out of sight of land, and for a fortnight his boats were tossed to and fro at the mercy of tremendous waves. To add to the discomfort the cold became intense, so that the poor sailors could scarcely perform the necessary task of working the ships. At length Diaz directed his course towards the east, and then north, and was soon overjoyed to see land again, the coast here running east and west. He found a bay (Mossel Bay), on the shores of which were cattle grazing peacefully, and then came to another bay further east, where he placed

a pillar. This bay was afterwards known as Algoa Bay, because it was a stage on the way to Goa, a later Portuguese settlement in India. The coast began to trend north, greatly to the joy of Diaz, who began to suspect he must have rounded the south of Africa. But on arriving at the Great Fish River the crew, who were thoroughly frightened, and had no doubt suffered much, insisted on returning. They had desired to turn three days earlier, but Diaz had pleaded with them to go just a little further.

Reluctantly the gallant captain turned back, following the coast until, to his delight, there appeared the Cape itself, "that so many ages unknown promontory." The storms which they experienced in its neighbourhood were reckoned as of little account, for had they not news of the most glorious kind for their king? They hurried home and received the delighted congratulations of the monarch, who refused to name their discovery the "Cape of Storms," as they had suggested, but gave it the title of "Cape of Good Hope," for beyond it there lay the good hope of an "all-Portuguese" route to the wealth of the Indies. No more important event than this voyage had happened in the whole history of exploration. It gave encouragement and hope to the great discoverers of the next hundred years. It was undoubtedly the voyage of Diaz which spurred Columbus to risk the great voyage to the Far West, for "if men could sail so far south, one might also sail west and find lands in that quarter."

It would naturally be expected that the Portuguese king would at once have set about preparations for another voyage to complete the work begun by Diaz. But delays arose, and although Portuguese travellers were sent to Abyssinia, where the "kingdom of Prester John" was discovered, it was not until 1497 that Vasco da Gama set out from Portugal for the second voyage

round the Cape. In the meantime Columbus had sailed to the West Indies and attention had been drawn away from Africa, but Columbus had sailed in the service of Spain, and as he was supposed to have almost reached the coast of China the Portuguese king became anxious for the completion of the journey round the south of Africa. He chose Vasco da Gama to lead what was really a national expedition, and the courageous captain left amid the prayers and cheers of a great multitude.



The Cape Route to India

There were four ships in the little squadron, and da Gama led them down the west coast until they reached the point where it bends to the Gulf of Guinea. He then took a brave step. He decided to steer directly south-east across the angle, instead of following the coast further. He calculated that this would bring him to the south of Africa, without the long and somewhat dangerous voyage followed by Diaz. For three months no land was

seen. The crews became mutinous and only by showing great sternness could da Gama induce them to proceed. This part of the voyage was in stormy and cold weather, as Diaz had found, but at last the little bay which he had reached was entered. Here they were able to procure some fresh meat. Proceeding on their way the travellers passed the furthest point reached by Diaz, at the mouth of the Great Fish River. Christmas Day found them off a lovely coast to which they gave the name Natal, because it was discovered on the birthday of Christ. After a period of rest in a bay further north (Quilimane), they passed on, but disease broke out, owing to the lack of fresh food. Only by the care of the captain was the disease kept under control. At Mozambique they first got into touch with the Arab traders who travelled between that part and India and the Red Sea. At Mombasa there was opposition to the weary but excited travellers, but further north, at Malindi, a more friendly reception awaited them. Presents were exchanged with the native ruler, and then the last stage of the voyage began.

The ruler at Malindi had provided da Gama with a pilot, and after about twenty days voyage across the Indian Ocean the coast of their dreams at last came in sight. India had indeed been reached (May 1498), and the theories which Prince Henry had believed in so strongly and had striven so courageously to prove were shown to be correct at last. The point at which da Gama anchored was off the town of Calicut, on the south-west coast of India, and great was the excitement both of natives and Portuguese when the latter landed, saying that they had come "in search of Christians and spices." The ruler was at first friendly, but his feelings were worked on by the inhabitants, most of whom were hostile to the strangers. A little trading was carried on, and then da Gama sailed for home. The voyage back to Africa was a long one,

and disease broke out again, many of the crew dying in consequence. Reaching Malindi, they soon set out again for the south. One of the ships had to be abandoned because it was in such a leaky condition. The Cape was rounded without difficulty, and after touching at the Azores, a group of islands which had been colonized by the Portuguese in the time of Prince Henry, the Tagus was reached in September 1498.

This is not the place to say much of the many expeditions sent from Portugal to India and the East during the next fifty years. Vast armadas were sent to compel the people of India to trade, and if they refused they were treated with great cruelty. Goa and Calicut were conquered and became Portuguese trading stations. In the south of Arabia, in the Persian Gulf, and in Ceylon, the Portuguese soldiers and sailors appeared. Soon Portuguese captains reached Sumatra, and finally they conquered the famous Spice Islands, or Moluccas, and the fabled wealth of the East lay at their feet. Many places in Africa, too, were now formally conquered, and places were settled as stations on the way to the more desirable East. Thus did the dreams of the fifteenth century bear fruit, and the might and wealth of Portugal became great indeed.

CHAPTER VI

COLUMBUS AND THE DISCOVERY OF THE NEW WORLD

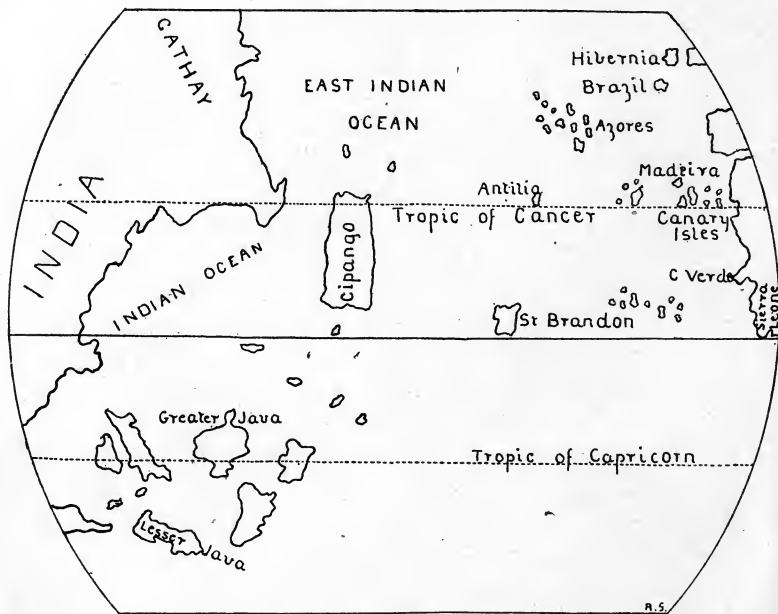
The work of Prince Henry the Navigator and those he sent forth into distant lands was the result of a new spirit of interest and enquiry. The effect of the discoveries of the Portuguese was to stir men's minds to an even greater extent than before. Among those who were deeply

affected by the progress of discovery was Christopher Columbus, whose wonderful achievements may now be described.

It is usually said that Columbus was a native of Genoa, in Italy. Whether this is so or not there is no doubt that he spent most of his early life as a sailor in Genoese ships. He sailed in many directions, his voyages ranging from the west coast of Africa as far north as Iceland, as well as all over the Mediterranean. "Wheresoever ship has sailed, there have I voyaged," he said, and the simple, courteous, and generous-hearted sailor might have added that whatsoever there was to learn, in reference to navigation and a knowledge of the world, that had he learnt. He gathered all he could find both of the existing state of geographical knowledge and of the ideas of the Ancients as to the form and general character of the world. He was equally at home in the book of Marco Polo and in the geographical ideas of the Greeks. The stories of the Portuguese discoveries filled him with an eager desire to emulate that work and to gain an opportunity of testing his own theories.

In 1470 he was in Portugal. Shortly afterwards he married a lady of Porto Santo, one of the Madeira Islands, and in course of residence there he gained much information from the Portuguese sailors who called at the island from time to time. It was then, probably, that his ideas began to take definite shape. He became convinced that it was possible "to reach the East by sailing to the West." He believed that the world was round, as many Greek thinkers had believed. He pieced together the many vague rumours heard about the existence of a great land to the west of the Old World. The Carthaginians had spoken of an "Antilla," Plato of an "Atlantis," existing out in the Western Ocean. He obtained possession of a map by Toscanelli, a clever Italian. This map showed

the Atlantic stretching to the coasts of Asia, and marked the position of the imaginary land lying between Europe and Africa and that continent. Moreover tales were told of strange things which had been washed ashore on the African Islands, curiously carved pieces of trees, and even



Part of Toscanelli's Map

human remains. "He proceeded from one position to another, until he came to the conclusion that there was undiscovered land in the western part of the ocean; that it was attainable; that it was inhabited."

In order to test these matters Columbus resolved to lead an expedition across the Atlantic, but the cost would be great, so that he would have to secure assistance. He first tried the great commercial city of Genoa, but those in authority would do nothing to help. Then he

thought the King of Portugal would be glad to help one who, like the great Prince Henry, desired to sail forth on a voyage of discovery. But the King of Portugal did not wish to help any plan which might interfere with the success of the Portuguese settlements in Africa. So he sent a caravel, secretly, to try to forestall Columbus, and on its return after an unsuccessful voyage he told the navigator that he would do nothing. In despair, Columbus turned to Spain. But the great rulers, Ferdinand and Isabella, were busy fighting the Moors. A committee of so-called experts was allowed to examine the schemes of Columbus, but they failed to understand them, and so denounced them as "vain and impossible." A few of the Spanish nobles were really interested, but for long they were unable to enlist the aid of the monarchs. Columbus sent his brother to the court of Henry VII of England, but owing to a disaster to the ship the maps he took with him were lost and delay occurred while new ones were being prepared.

At last Isabella agreed to help Columbus with the necessary money. He was to be an admiral, viceroy of all new lands which might be discovered, and to have a share of all the profits. He was to be the bearer of letters from the Spanish King and Queen to the Grand Khan, Prester John, or any other rulers of the East to whose courts he might come. No doubt Isabella was much influenced by the declaration of Columbus that he would convert the races of those eastern lands to Christianity. In spite of the royal help it was only with great difficulty that crews could be obtained, for men feared the dangers of such a voyage into the unknown. At last, by bribery, and even by using force, crews were found for three vessels, each vessel being of less than 100 tons. There were 120 persons in all, and provisions for twelve months were carried. The *Santa*

Maria, with Columbus on board, was decked throughout; the *Pinta* and the *Nina* were decked only at each end.

The harbour of Palos was left in August 1492, and no sooner had the voyage begun than the crews gave trouble. They were afraid when they saw the volcano of Tenerife, in the Canary Islands, but their terror increased when they lost sight of this outpost of the Old World. Columbus tried to soothe his men by telling them of the glories which lay ahead. He stimulated their greed by telling of the wealth they would find. He gave them false information as to the distance covered each day, so that they should not think they were so far from home as really was the case. Soon they entered a region where the water was covered with dense masses of floating seaweed. This was what is called the Sargasso Sea. At first they were filled with joy because they thought it indicated the nearness of land. Sometimes birds were observed, each flight filling them again with hope. The winds continued to blow them out to the west, for they were in the region of the trade winds, and so they began to fear they would never be able to return. Only the extraordinary perseverance and determination of the captain prevented a panic taking place. At last they found "a quantity of fresh weeds, such as grow on rivers; they saw a green fish of a kind which keeps about rocks; then a branch of thorn with berries on it, and recently separated from the tree, floated by them; then they picked up a reed, a small board, and, above all, a staff curiously carved." Thus the signs of land became more frequent and definite, until one evening Columbus took up his position on the high poop of his vessel to keep a close personal look-out for the first appearance of land. "About ten o'clock he thought he beheld a light glimmering at a great distance." Afraid of making a mistake he called others to witness the remarkable sight, "as if it

were a torch in the bark of a fisherman, rising and sinking with the waves." About two in the morning the land was seen clearly, and the ships hove to, waiting for the dawn. The excitement of Columbus may well be imagined. His dreams were about to be realized. Whether the land were fertile or desert, whether the people were like those of other lands, or "some strange and monstrous race," remained to be seen.

Next morning (October 12th, 1492) a beautiful island (San Salvador, or Watling Island, in the Bahamas) came into full view. With tears of joy in their eyes Columbus and his men fell on their knees on the shore, and thanked God for their success. Then they took possession of the island in the name of the King and Queen of Spain. The sailors, hitherto so despondent, thronged to embrace their captain. The natives, at first filled with terror, gradually regained courage when they found the strangers peaceful, and fell in adoration at their feet, "gazing in silent admiration at the complexion, the beards, the shining armour, and splendid dress of the Spaniards." Gifts of coloured caps, bells, and glass beads were exchanged for parrots, darts, and cotton threads.

From the natives Columbus heard that gold was to be obtained from "Cubanacan." Full of the idea that he was off the coast of Asia, he took this to be a reference to Kubla Khan, and decided to set off in the direction indicated. He soon reached Cuba, which he first took to be Cipango (Japan) and then to be Asia itself. Here he heard, from envoys sent into the interior, of "natives going about with fire-brands in their hands, and certain dried herbs which they rolled up in a leaf, and, lighting one end, put the other in their mouths, and continued... puffing out the smoke. A roll of this kind they called a tobacco." Maize, or Indian corn, and cotton were common, but Columbus wanted to find something more valuable, that

he might take back some sign of success that would be appreciated in Spain. He sailed round much of the coast of Cuba, admiring its many beauties, and then reached Hayti, which, from its likeness to parts of Spain, he called Hispaniola.

The natives were everywhere friendly, but there seemed no sign of gold. A further discouragement was the wreck of one of the ships on the coast. Columbus resolved to leave a party on the island, using the wood of the wrecked ship for the making of a fort. Those left behind were to gather all possible information ready for the use of Columbus on his return from Spain. Meanwhile the *Pinta*, under Pinzon, deserted, having probably gone off to search for gold, and only rejoined the others as they were beginning the return voyage.

Columbus started for home on January 4th, 1493. Great storms and adverse winds were encountered on the last part of the journey, just before the Azores were reached. A halt was made at these islands, and the travellers offered a solemn thanksgiving in the little church for their deliverance from death. The islands, being Portuguese, were not inhabited by people friendly to the Spaniards, so Columbus hurried away. More bad weather was experienced, and it was with deep thankfulness that they entered the mouth of the Tagus. They were received politely by the King of Portugal, at Lisbon, although he must have felt somewhat bitter when he realized what an opportunity he had lost. At length, after an absence of seven and a half months, Columbus reached the little harbour of Palos once again, and received the excited admiration of the inhabitants, whose interest was deeply aroused by the natives and native products which the travellers had brought back with them as evidence of their success.

CHAPTER VII

LATER VOYAGES OF COLUMBUS. VESPUCCI,
CABRAL, AND BALBOA

After spending a short time at Palos and Seville, Columbus received word to go to the Court at Barcelona. The news of his discoveries filled the monarchs with amazement and delight. They at once requested Columbus to prepare for a second voyage, in order to make sure of the possession of the new lands. It was true that these lands were supposed to belong to the Grand Khan, but according to the ideas of those days it was right for Christians to seize pagan lands in order to convert the heathen. To remove all doubts the Pope was asked to sanction the proposals of the Spanish Court, and this he was glad to do, because he looked upon the Spanish King and Queen as pillars of Christianity. In order, however, to prevent a possible quarrel with Portugal, the Pope issued a declaration, or bull, on May 4th, 1493, by which an imaginary line was drawn from the North to the South Pole, one hundred leagues to the west of the Azores and the Cape Verde Islands. All land discovered by the Spaniards to the west of this line, if it had not been taken by another Christian country before Christmas, 1492, was to belong to the Spanish Crown. Land discovered to the east of the line was to belong to Portugal. This is interesting, because in the first place it shows that no other country was looked upon by the Pope as being at all likely to discover new lands, and in the second place because the bull took no account of what was to happen if the discoveries of the two nations came to meet on the opposite side of the globe. In 1494, at the

request of Portugal, the line was moved to a longitude twelve hundred miles further west.

For his second voyage Columbus had a much larger fleet at his disposal. There were twelve caravels, as well as a number of smaller vessels. The whole company numbered about 1500 men, and included skilled workers and a number of missionaries. Seeds and agricultural implements were taken for use in the new lands. The fleet left Cadiz on September 25th, 1493, and a very favourable voyage followed, owing to "the goodness of God, and the wise management of the Admiral, in as straight a track as if they had sailed by a well-known and frequented route." The first island reached was called Dominica, because it was found on a Sunday. Many other new islands were visited, in some of which it was noticed that the people were cannibals. At last Hispaniola was reached again, but the fortress which had been built was in ruins, and the garrison had entirely disappeared. They quarrelled with the natives and with one another, and all had perished.

Then Columbus made a new settlement on the island, but although much time had been spent in search, no gold was found. Moreover the Admiral himself fell ill, and threats of mutiny were common. Anxious to justify himself Columbus sailed on in search of new lands, and discovered the beautiful island of Jamaica. Returning to the settlement he showed great severity in his government of the town he had founded. Meanwhile exaggerated reports of his conduct reached Spain, where his great successes had made him many enemies. These used their influence with the Queen, and Columbus finally decided to return to Spain, his brother becoming governor in his place. Columbus received no great welcome this time on his return to Spain, although the monarchs were kind to him.

In 1498 he was allowed to sail on a third voyage, taking

six vessels. On reaching the Canaries he divided the fleet, sending three ships direct to Hispaniola, and he himself leading three in a more southerly direction, in the hope of being "guided by God to discover something which may be to his service, and that of our lords, the King and Queen, and to the honour of Christendom." The heat was now intense, and as the winds were light the voyage lasted so long that the supply of water almost gave out. "On the 31st July there was not above one cask of water remaining in each ship, when, about mid-day, a mariner at the mast-head beheld the summits of three mountains rising above the horizon, and gave the joyful cry of land." Columbus had decided to name the first land seen in honour of the Blessed Trinity, and the sight of the three peaks struck all with wonder at the strange coincidence. The island was called Trinidad. It was so beautiful that it reminded Columbus, from its verdure, "of the gardens of Valencia as seen in the month of March." Continuing south, Columbus reached what was really the coast of South America, but what he thought was a great group of islands. He passed the Gulf of the Orinoco, being struck with the quantity of fresh water in the sea in that region, and then returned to Hispaniola. He was convinced that he had been near a great continent, and from the beauty of the parts he had seen he declared it must be the Garden of Eden!

On arrival at Hispaniola he found a rebellion in progress among the settlers. For months he laboured to restore order. Some who disliked his methods returned home, and in 1500 the enemies of Columbus procured his recall, and he was brought to Spain in chains. The King and Queen allowed him to lead a fourth voyage, in which he was to find a sea-passage to the Portuguese regions of Asia. This was in 1502, and on the way out he revisited many of the islands he had discovered before. Bearing

directly west he reached the coast of Honduras. Here he was astonished to notice the marks of civilization shown by the natives, who had "hatchets, formed not of stone, but of copper, various vessels neatly formed of clay, sheets and mantles of cotton, great quantities of cacao, which they used both as food and money." Columbus failed to find the expected opening, although he sailed south along the coast as far as Darien. When he returned to Cuba more trouble with rebels arose, and in 1504 he returned to Spain. His patroness, Isabella, died almost at the moment of his arrival, and the great explorer, whose last years had been one long struggle with disease and misfortune, spent the remainder of his life in poverty, and died in 1506.

After the third voyage of Columbus many Spaniards filled up the details of the geography of the West Indies. It was not long before it was discovered that the continent touched by Columbus was really a New World, and not Asia at all. One of those who sailed along the coast of the new continent was a certain explorer named Amerigo Vespucci. In 1497-8 he sailed along the coast of South America, and northwards along the coast of what is now the United States. Thus Vespucci took part in what was really the first European visit to those parts, for Columbus did not reach them till later. In 1499 Vespucci again sailed west, and reached the coast of Brazil. In the following year a Portuguese sailor named Cabral was sent on a voyage to the East. On his way out he was driven by the trade winds out into the Atlantic, and also reached the coast of Brazil. Now he reckoned correctly that this was east of the line of division made by the Pope, and claimed it for Portugal. Of course when the line was drawn it had never been thought that it would cut through a part of the New World discovered by Columbus, in the service of Spain.

Vespucci now entered the service of Portugal, and in 1501-2 explored the coast of South America, reaching south to a point about 1500 miles north of Cape Horn. Thus was realized the enormous extent of the new southern continent, though as yet its shape to the west was not at all known. Vespucci's account of his voyage aroused great interest, and in 1507 a writer suggested that "as a fourth part of the world had been discovered" by Amerigo Vespucci it should be called America after him.



The Spaniards in the New World

In time the name was applied to the whole of the New World, although at the time men had no idea that it formed a continuous land mass.

This chapter may be concluded by a brief account of an event which was of little less importance than the work of Columbus himself.

The Spaniards made many attempts to form settlements in Central America, but owing to bad leadership

and disease they failed. When the survivors of one expedition returned to Hispaniola they were sent back. Among those on the ship was a man who hid himself in a cask among the cargo. He was a debtor, anxious to escape from his creditors. This penniless exile was Nunez de Balboa, who showed himself to be the one man able to bring about a measure of success in the settlement on the mainland.

When Balboa was discovered on the ship the captain was angry and would have left him on an island, but the crew pleaded for him and he was spared. On landing at the isthmus of Darien (Panama) he at once became leader of the colonists. He restored order and won the esteem of the natives in a remarkable way. He heard from them of the existence of a great ocean on the farther side of the isthmus, and of a great country, rich in precious metals, lying to the south. One day he climbed the high range in the centre of the isthmus. At the summit a wide extent of ocean burst into view. His were the first European eyes to see the wonderful Pacific (1513):

He stared at the Pacific—and all his men
Look'd at each other with a wild surmise—
Silent, upon a peak in Darien.

Balboa resolved to build ships and to sail upon this ocean. He believed that the rich country of which the natives spoke was Asia, and that now at last the wealth of the East was to be attainable. Materials were sent from the West Indies and from Spain, to the east coast of Darien, and then Balboa began to build ships with them, after first having them taken across the isthmus. Just as his preparations were almost completed he was foully murdered by those who were jealous of his success, and it was left to others to reap the benefit of his wonderful courage and energy.

CHAPTER VIII

THE CABOTS AND THE BEGINNING OF THE
SEARCH FOR THE NORTH-WEST PASSAGE

When the news of the great voyage of Columbus reached England probably no Englishman was more sorry than Henry VII himself that the opportunity of aiding the great navigator had been missed. Consequently it is easy to understand why he showed himself eager to help a certain Genoese, John Cabot by name, who had been a trader under the flag of Venice but who had settled with his family at Bristol in the reign of Edward IV.

Cabot, while trading in the Levant on behalf of Venice, had questioned the merchants who brought to the coasts of Asia Minor and Syria the rich products of the East. He had asked them where their merchandise came from, but they always said it had passed through many hands before reaching them from the Far East. Cabot, who was skilled in the knowledge of the maps and charts of those days, and who had accepted the idea that the Earth was a sphere, resolved to use an early opportunity of reaching the coast of Asia by sailing from Europe westwards across the North Atlantic. He knew that England could not do without the spices and other riches of the East, and he correctly read the character of Henry VII, whom he believed to be willing to do anything to help to give England a larger share in the conveying of those riches. Cabot knew that if he could find a route to the East which would save the necessity of frequent change of ship or caravan, such as the existing route made necessary for goods brought from the East to England, he would be the means of reducing the cost of those

goods to the English. Consequently he requested the King to help him in carrying out his plans, and Henry's agreement is shown in a Royal letter which the King published in 1496.

In this letter Henry granted to Cabot and his family full authority "to saile to all parts, countrys, and seas of the East, of the West and of the North," to seek out parts hitherto unknown. It will be noticed that no mention is made of the south, probably because Henry did not desire the ships of Cabot to interfere in those regions which were considered to be the domain of the Spaniards and Portuguese. The Cabots might occupy all lands which they discovered, in the name of the King. All the profits were to be theirs with the exception of one-fifth, which was to be paid to the King. As far as English ports were concerned, they were to be free of all the tolls usually demanded of merchants. All subjects desiring to trade with newly-discovered lands were to obtain the permission of the Cabots.

The actual voyage, which was made in a small ship with a crew of eighteen men, began in 1497. The explorer sailed south of Ireland and into the Atlantic, travelling north until he reached a certain line of latitude and then turning west. The exact point at which he reached the coast of North America is not clear, but probably it was near Cape Breton, in the Gulf of St Lawrence. He then coasted for many miles, being much struck by the enormous number of fish with which the sea abounded in those parts. He found signs of habitation, but as his crew was small, and he had little supply of food left, he resolved to return, reaching Bristol three months after his departure on the outward voyage.

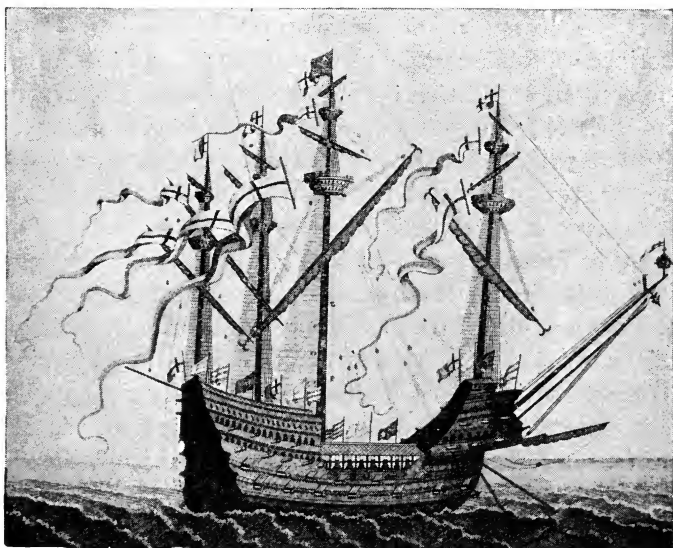
There is no doubt that the voyage was only intended as a sort of expedition of preliminary enquiry, nor is there any doubt that Cabot believed that he had reached the

coast of Asia. King Henry was greatly pleased with the report, and not only personally gave Cabot a gift of money but also secured him a yearly pension. Moreover preparations were begun for a second voyage. While he was in London, a writer says, Cabot "dresses in silk, and these English run after him like mad people, so that he can enlist as many of them as he pleases."

On his second voyage Cabot took with him several ships, laden with goods of English manufacture. His object was to try to find the island of Cipango, or Japan, described by Marco Polo. Here he expected to find the source of most of the wealth of the East. He started from Bristol in May 1498, but little is known definitely as to what happened on this voyage. There is no doubt that the American coast was reached once again, and that Cabot proceeded to sail southwards along the coast, hoping to find the much-desired Cipango, which he knew must lie in warmer latitudes. As day after day passed and no signs of the goal were seen, Cabot realized that the land he was coasting was not Asia at all, but the fringe of a new continent. There seemed no chance of finding a way across this strange land, and Cabot returned. He was no longer patronized by the King, probably because Henry was disappointed at Cabot's failure to reach the East, and also because the King did not wish to bring about difficulties with the Spaniards, whose alliance he desired to keep, and who resented any intrusion in the regions which they claimed for themselves. Nevertheless John Cabot had performed a great service for England, and he was no doubt the first European to visit the coasts of North America after the time of the Vikings.

Now John Cabot's second son was named Sebastian, and there is no doubt that he made a voyage, probably in 1499, in the same direction as those his father had undertaken. Unfortunately this son was a very con-

ceited person, and in later years in the account of his own voyage he added details from the voyages of his father. The result was that until recently it was thought that all of Sebastian Cabot's statements were untrue, but there is no need to go so far as that in condemning him. It seems clear that he sailed in command of two ships with crews amounting to about three hundred men in all.



An English Ship of the early Sixteenth Century

On reaching America the course taken was northwards until, although it was July, "he found monstrous heapes of ice swimming in the sea, and in manner continuall daylight, yet saw he the land in that tract free from ice, which had been molten by the heat of the Sunne."

Cabot was actually in search of a route round the north of America to Cathay, but the difficulty of forcing

a way through the ice, or perhaps trouble with his crew, caused him to turn southwards. He journeyed as far south as the coast of what was later known as Virginia, indeed some think he even reached Florida. Whatever the actual places were at which Sebastian Cabot touched, the value of his work is clear. Cabot's idea of the possibility of the existence of a route by what was known later as the North-west Passage," was a suggestion for others to follow, and so really gave the direction to much of the work of later explorers such as Frobisher, Davis, and Hudson. Moreover the journeys of himself and his father were the foundation for the claims of the English in later days to a right to the lands on the east coast of North America, and by that time the Spanish government had sent navigators north from the West Indies in order to forestall the English in their claim to the great North American continent.

CHAPTER IX

FERDINAND MAGELLAN AND THE FIRST VOYAGE ROUND THE WORLD

The followers of Columbus had mapped out the coast of Brazil, Spanish colonists had occupied the isthmus of Darien, and a Spaniard had gazed on the broad Pacific. Would it ever be possible, people wondered, for ships to reach that ocean by finding a channel leading to it from the Atlantic? The successful discovery of such a channel will ever be connected with the name of Ferdinand Magellan.

Magellan was born in Portugal, about 1480, of noble

family. At an early age he became a page in the service of the Queen, afterwards entering the service of King Manoel. This was the king who sent Vasco da Gama on his successful voyage to the East. Great numbers of expeditions were sent out after that of da Gama, and Magellan was one of many who became filled with an excited longing to journey to the new lands.

In 1504 he joined the fleet of Almeida, who was to be the first viceroy of the new possessions. The fleet sailed round the Cape and up the east coast of Africa, then across the Indian Ocean to the south of India. Of the many fights in which Magellan took part this is not the place to speak. In 1509 he sailed on to Sumatra and Malacca. Here he was the means of saving the life of a close friend. He then returned to India, where he entered the service of the great Portuguese, Albuquerque, Viceroy of India. In 1511 another expedition was sent to Malacca, and this time Magellan himself was a captain. Whether he personally ever reached the famous Spice Islands, or Moluccas, is uncertain.

In 1512 Magellan returned to Portugal, but he could not settle to a life at home, and so he took part in a war against the Moors. Soon afterwards he was accused of trading with them, against the rules of the expedition. Perhaps because of this he quarrelled with the King. This was to prove a turning point in the career of the navigator. He had long been considering the possibility of reaching the Moluccas by voyaging westwards over the Atlantic, and by finding some channel into the Pacific. He laid his schemes before the Portuguese King, but the latter refused to help him. So, like Columbus before him, he left Portugal and entered the service of the Emperor and King of Spain, Charles V.

Magellan laid his plans before this monarch, and in 1518, after many delays, an agreement was made. The

King was to provide five ships and 235 men, with food for two years. There was to be no attempt at exploration in lands belonging to the King of Portugal. Magellan and his friends were to receive one-twentieth of the profits, with a share of future trading profits. They were to be governors of the new lands, and captains-general of the armada.

At last the five ships were ready. They were the *Santo Antonio*, *Trinidad*, *Concepcion*, *Victoria*, and *Santiago*, and ranged in size from 120 to 75 tons. Careful instructions were drawn up so that the ships should not lose touch with one another on the voyage. The crews were a strange mixture of races. There were, among others, Spaniards, Portuguese, Germans, French, Greeks, Genoese, Malays, negroes, and even one Englishman. A solemn service was held before the voyage began, but many of those who undertook the voyage had already promised the enemies of Magellan that they would mutiny before long. On September 20th, 1519, the coast of Spain was left and the great voyage began.

Before leaving, Magellan made his will and left a statement for the King of Spain. In the statement he set forth his ideas with regard to the questions he hoped the voyage would settle. In particular he hoped to make clear the exact dividing line between the spheres of Spain and Portugal in the East Indies, for the line drawn by the Pope at the time of Columbus had not settled what was to happen when Spaniards and Portuguese should meet on the other side of the globe. Magellan hoped to prove that the Moluccas would, from their position, belong to Spain.

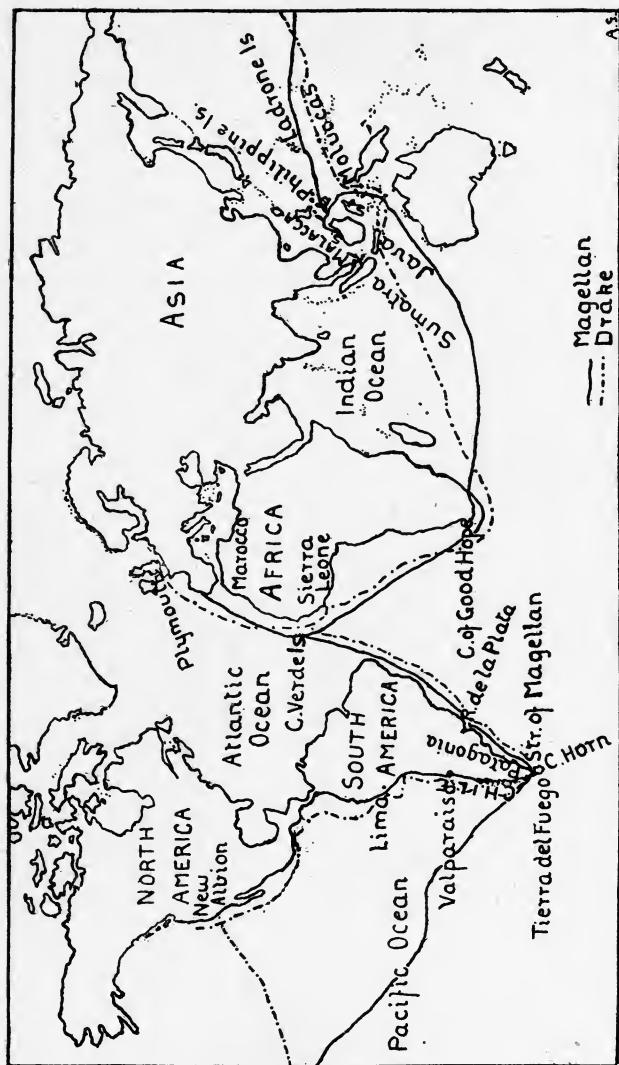
From the coast of Spain, the *Trinidad* leading the way, the little fleet made for Tenerife. Shortly after leaving this place they steered south-west across the Atlantic. The weather became very bad. "During the storms,"

says one of the travellers, "the holy body of St Elmo appeared to us many times, among other times on an exceedingly dark night, with the brightness of a blazing torch, on the maintop, where he stayed for about two hours or more, to our consolation, for we were weeping. When that blessed light was about to leave us, so dazzling was the brightness that it cast into our eyes, that we all remained for more than an eighth of an hour blinded and calling for mercy, and truly thinking we were dead."

The coast of South America was reached near the site of the modern town of Pernambuco. The fleet then proceeded to sail south-west along the coast, in the hope of finding the opening which Magellan believed to exist. For a time it was possible to obtain fresh fruit and other supplies from the natives on the coast. At length the mouth of the Rio de la Plata was reached, early in 1520. This looked as though it might be the entrance to the expected passage, but a little examination showed that the idea was incorrect.

The fleet sailed south, the weather becoming very bleak and tempestuous. On reaching latitude $49\frac{1}{2}^{\circ}$ south, Magellan anchored in the bay of St Julian. From the time they left the coast of Africa there had been threats of mutiny on the other vessels. The crews were afraid of the dangers of the voyage, and, as has been said, some of them had been paid by the enemies of Magellan to ruin the attempt. But Magellan was full of a spirit of the highest courage and determination. On Easter Sunday the mutiny broke out. The captains of two ships boarded a third and imprisoned its captain. Magellan, hearing of these events, sent an officer with a boat's crew to the ship containing the ringleaders. One of the rebel captains was killed, and so by the prompt action of Magellan the mutiny was quelled.

For two months the ships had remained at St Julian



World-voages of Magellan and Drake

without seeing any sign of life on the bleak Patagonian shores. One day was seen "a naked man, of giant stature, dancing, singing, and throwing dust on his head." Magellan managed to persuade this native to go on board. "He was so tall that we reached only to his waist. His face was large, and painted red all over, while about his eyes he was painted yellow, and he had two hearts painted on the middle of his cheeks. His scanty hair was painted white. He was dressed in the skins of animals, skilfully sewn together."

On the approach of spring, Magellan sent his trusted companion, Serrão, in the *Santiago* to search the inlets to the south. He found a wide river-mouth, and spent some days fishing for seals. A storm sprang up, the *Santiago* was wrecked, and he was in great danger, till two of his crew managed to make their way on a raft to Magellan, who saved them all from certain death. Before leaving St Julian, on August 24th, 1520, Magellan set on shore two of the mutineers, the two ringleaders having already been killed. They were given some supplies but were never heard of again. Only by such resolute conduct could Magellan hope to keep his fleet together.

On October 21st the long-sought channel was found, but it proved an arduous task to thread a way through the tortuous windings of the straits. At the outset there were more murmurings, and one ship, the *Santo Antonio*, deserted and returned to Spain. On the American side of the straits were lofty mountains, with wonderful glaciers creeping down their sides. To the south were seen bleak uplands on which were the lights of fires. Hence they called that land *Tierra del Fuego*—the Land of Fire.

On November 28th the western outlet was reached, and the ships entered the Great South Sea upon which Balboa had gazed. Steering north and north-west to

reach a milder climate, the three ships got into the south-east trade winds and wandered three or four months without seeing land, "except two desert islands."

Of course the travellers had no idea of the length of the voyage before them. As day followed day their sufferings for want of food and fresh water became intense. "We ate biscuit, but in truth it was biscuit no longer, but a powder full of worms, for the worms had devoured its whole substance." They even had to eat the hides which were used in certain parts of the rigging. The leather was first put into salt water, to soften it. "We had also to make use of sawdust for food, and rats became such a delicacy that we paid half a ducat apiece for them." Naturally disease broke out and many died.

After ninety-eight days the islands called by Magellan the Ladrões were reached. The inhabitants were "poor, but ingenious, and above all thieves, and so for that reason we called these islands the Robber Islands." A little trade was entered upon, and some fresh food obtained. The ships then reached one of the Philippine group. Here much time was spent in cruising about. The natives appeared friendly and many of them became Christian. Unfortunately a fight against a native king broke out, and Magellan was killed.

Thus, to the grief of his crew, who had learnt to admire and love their heroic leader, Magellan was deprived of the chance of finishing his voyage round the globe. But he had made his name fit to rank among those most honoured in the history of the world.

The two remaining ships, the *Trinidad* and the *Victoria*, continued to the Spice Islands. The former vessel was seized by the Portuguese, and so the *Victoria* alone, with one quarter of the original crews, sailed home round the south of Africa. The voyage was long and dangerous. Adverse winds, heavy seas, and disease

troubled them all the way. Forced to touch at the Cape Verde Islands, which belonged to their rivals, the Portuguese, thirteen of the crew were detained for a time as prisoners, and only eighteen worn-out survivors bore home to Spain the tidings of the greatest feat in the history of exploration.

CHAPTER X

CORTES AND THE DISCOVERY OF MEXICO

At the time when Magellan was making preparations for his voyage into the Pacific Ocean, Spanish expeditions were being led from Cuba to the coasts of Central America and Mexico. Florida had been discovered in 1513. It was still believed that these lands were very near to the lands of the Grand Khan, and that further journeys overland would bring the Spaniards to the country of that mighty ruler. In 1517 one of the companions of Columbus, a man named Cordova, visited the coast of Yucatan, and like Columbus himself was astonished at the high state of civilization shown by the natives. On endeavouring to land, Cordova and his men were opposed by the natives and returned to Cuba with news of their discoveries. During another voyage shortly afterwards the coast was explored still further, but the glory of first revealing the wonders of Mexico to the eyes of the world was to fall to the great Spanish explorer and soldier, Fernando Cortes.

Cortes was born in 1485, the year before Diaz set out for the Cape. He was intended for the Law, but he soon showed that he desired a life of activity and adventure. In 1504 he set out for Hispaniola, and some years afterwards took part in the final conquest of Cuba, which, with

Hispaniola, Puerto Rico, and Jamaica, formed the only actual settlements of the Spaniards in the New World at that time. In 1519 it was decided to send an expedition to Yucatan to endeavour to rescue certain Spaniards who were captive there, and to try to form a settlement there. Cortes was chosen to lead this attempt. Just before setting sail he quarrelled with the governor of Cuba and left the island fully aware that possibly death, certainly disgrace, awaited his return if unsuccessful. Landing on the coast of Yucatan, he fought a battle against the natives and received the submission of the province. Four days later the ships reached the harbour of San Juan de Ullua, on the coast of Mexico.

As soon as the ships anchored, a party of natives came out in a small canoe and asked who the strangers were and whether they intended to stay. They were told that the Spaniards would land the next day. On landing, the Spaniards were helped by the natives to form a camp on the shore, and were shown every sign of friendship. Shortly afterwards an embassy arrived from Montezuma, the great king of the country, who lived at his capital, Mexico, far inland on the plateau. The envoys were greatly astonished on learning that Cortes came from "the greatest and most powerful sovereign in the world," for that title they believed to belong to their own ruler. However they presented the Spaniards with fine cotton mantles, and other articles of fine texture, as well as ornaments of gold. Cortes presented in return "an arm chair, and some ornaments of glass beads," and also gave a display of horsemanship by his cavalry, and a discharge from his guns. The Spaniards were much astonished to see the envoys busily engaged in sketching the scenes they were witnessing. At length the Mexicans departed to report to Montezuma, and to bring back his answer to the Spaniards, who desired to see him.

Now Montezuma, who although revered by his people was at heart a coward, feared greatly lest the strangers should come to his town. Like the rest of his people he looked upon Cortes as a god who had once inhabited the country but who had left years before to go to the east, and who had declared his intention of returning again. The King sent more presents, including "a golden sun, with rich decorations," and a larger "silver moon," and told the envoys to try to persuade the Spaniards that the dangers of the road were too great for them to undertake. But Cortes was not the man to be turned from a purpose once held; moreover the sight of the presents convinced him that the city of the King must be very wealthy, and made him more determined than ever to visit it. Some of his men began to urge that they should return to Cuba, but Cortes skilfully won them over for the time being. He had heard that many in the kingdom of Montezuma were ill-content with their ruler, and would welcome a deliverer. Moreover the Indians who lived along that part of the coast requested the help of Cortes to deliver them from the oppressive tax-gatherers of the monarch. Before beginning this work Cortes removed his camp to a more healthy place, further north. This was the settlement of the True Cross, Vera Cruz.

Trouble with his own men again broke out, and Cortes had to take a strange step in order to secure their obedience. He burned all the ships save one, and then delivered a powerful speech to the men, appealing to their courage as well as to their desire for plunder. They became fired by his words and the meeting broke up with shouts of "To Mexico! To Mexico!"

When Cortes first reached the coast of Yucatan he had about 400 men. When at Vera Cruz another party of 72 men arrived from Cuba, but about 30 of the original body had died of disease or wounds, so that after leaving

150 at Vera Cruz it was a very tiny army that set out on the long march to the capital. After the beautiful but unhealthy coastal strip had been crossed, the way led by a steep ascent to the plateau, which was more than 6000 feet above sea-level. Here the climate was much cooler, and the trees were like those of Europe. All along the route Cortes announced to the natives that he came as a messenger from the greatest king in the world, and that they must give up idolatry and human sacrifices. At various points the Spaniards came to towns which seemed wonderfully well built, and were ruled by representatives or vassals of Montezuma. Most of these refused demands for gold, and laughed at the idea that there might be a king greater than Montezuma. With some of the Indian tribes Cortes had to fight, and his successes raised great alarm in the heart of the Mexican king, who viewed with dismay the steady advance of the strangers. He sent more presents, offering to pay a yearly tribute to the King of Spain if Cortes would abstain from entering his capital, but the conqueror took no heed.

At this time the great volcano of Popocatepetl broke into eruption, and as this was supposed to take place only when great danger threatened the native alarm increased. Cortes sent a number of men to climb the mountain and report on what they saw. It seems strange to us that these men should risk the dangers of such an ascent, as though they had not already quite enough in front of them, but the mixture of rashness and skill is a feature of the Spanish adventurers of those days.

In November, three months after leaving Vera Cruz, the little army, consisting now of 350 Spaniards and about 6000 Indian allies, reached a point from which they looked down on the valley of Mexico. "The scene on which the Spaniards gazed was, beyond question, one of the most wonderful and beautiful ever offered to man's

contemplation." The valley, "with its picturesque assemblage of water, woodland, and cultivated plains, its shining cities and shadowy hills, was spread out like some gay and gorgeous panorama before them. Stretching far away at their feet were seen noble forests of oak, sycamore, and cedar, and beyond, yellow fields of maize, intermingled with orchards and blooming gardens. In the centre of the great basin were beheld the lakes; their borders thickly studded with towns and hamlets, and, in the midst, like some Indian empress with her coronal of pearls, the fair city of Mexico, with her white towers and pyramidal temples, reposing, as it were, on the bosom of the waters." Thus writes Prescott, the great historian of the Conquest of Mexico.

Passing over the causeways which led across the channels of water to the capital, Cortes and his men were received by Montezuma himself, who gave his visitors great gifts and announced his intention of entertaining them with all honour. But after some days Cortes began to distrust the ruler and by a trick obtained possession of him and took him as a hostage to his own quarters. The unhappy monarch was compelled to order his people to submit to Cortes as the representative of their lawful ruler, the King of Spain. He also ordered tribute to be collected and paid to the strangers, but in spite of all the efforts of Cortes he refused to renounce his pagan religion. Full of rage, the Catholic general himself broke down the idols in the temple and ordered the holding of Catholic services there. But his violence produced strong feelings of opposition, and he began to see the dangers in which he had placed himself by his rashness. Moreover he heard of the landing on the coast of men sent by his rivals, and resolved to go with part of his troops to fight them.

The remainder of the story of Cortes, of his return to stop a revolt in Mexico, and of the final overthrow of the

Mexicans, belongs to the study of history rather than of exploration. In the story may be read an account of the strength and weakness of the Spaniards in their methods of dealing with the peoples of the New World. Partly by a display of extraordinary courage and daring, partly by unheard-of violence and cruelty, they built up in Mexico and the surrounding lands a New Spain, from which, at first at all events, there poured forth a stream of treasures to fill the pockets of the conquerors.

The last years of Cortes were spent in frequent journeys between Europe and Mexico, and from the latter country he sent out many expeditions of discovery in various directions. It is interesting to notice that in 1533 one of these reached the coast of California.

CHAPTER XI

PIZARRO AND THE CONQUEST OF PERU

The story of the successes of Cortes and his men in Mexico induced an ever increasing number of Spaniards to go to the New World. Many of these found their way to the isthmus of Panama, and some of them were companions of Balboa on his famous journey to the watershed from which he first looked on to the broad Pacific. The Indians of those parts constantly spoke of the existence of a land of gold to the south, and when Balboa failed in his efforts to lead an expedition in search of that land others took up the work. The one who successfully accomplished the task was Francisco Pizarro.

Pizarro, a native of Spain, spent his early years in very dull fashion as a swineherd. But the tales of the New World fired his blood, as was the case with

so many of his countrymen. He escaped to Seville, and eventually he became one of Balboa's assistants in the efforts to colonize Darien. After spending some years in this neighbourhood Pizarro set out from Panama, in 1524, with one ship and a crew of men whose sole desire was to gain gold. They sailed many leagues down the coast of South America, but suffered from adverse winds and great rainstorms. The land was covered with a dense and swampy forest, and all their efforts to penetrate it failed. Food supplies ran short, and the men became full of discontent, although Pizarro gradually won their respect by his generous unselfishness. At length he sent the ship back, with a large part of the crew, to obtain further supplies. He and his own party wandered among the forests until they found an Indian village in a clearing. From the natives they heard more about the great and rich country which lay beyond, and this made Pizarro still more determined to succeed. Meantime their sufferings from the rain and from disease and famine were intense, and their relief was great when they saw the ship return. The whole party now proceeded down the coast, and at length they found the forest less dense and so they resolved to land. They discovered a very large village which was deserted by the natives when the Spaniards approached, but the latter were afterwards so fiercely attacked that they returned to their ship. The ship was leaky, and Pizarro resolved to return to Panama for repairs.

In the meantime, Almagro, a partner of Pizarro, had been left at Panama to await the completion of a second ship. He sailed south after Pizarro but missed him, and returned after reaching a point about four degrees north of the Equator. The two captains were excited by the amount of gold which they had obtained from the natives and at once made preparations for a second voyage. Two ships were secured, and with much difficulty 160 men were

enlisted, and a moderate supply of horses taken on board. The weather being favourable, the point reached on the last voyage was soon passed. A landing was made, and as more gold was obtained it was sent back on one of the ships, to tempt a further number to join the travellers. Pizarro remained on land, while his pilot, with the other ships, sailed south to examine the coast. He passed the island of Gallo, and was astonished at the many signs of civilization, just as Cortes had been when on his way to Mexico. Among other things he saw a large raft, propelled by a square cotton sail, and carrying several Indians. "But what struck him most was the woollen cloth of which some of the dresses were made. It was of a fine texture, delicately embroidered with figures of birds and flowers, and dyed in brilliant colours." The pilot kept some of the Indians, to teach them Spanish, and went on till he reached half a degree south, returning thence to Pizarro. The latter and his men had again suffered greatly, but the news which the pilot brought, and the return of the other ship with fresh supplies of food and men, encouraged all again.

But difficulties again arose, and finally one ship was sent to Panama for yet more supplies. The leader, with most of the other men, was to remain on the island of Gallo. The men of this latter party showed increasing signs of mutiny, and when relief ships arrived they at once prepared to return home. This was an occasion when Pizarro showed the determined courage for which he has always been remembered. Drawing his sword, he traced a line with it on the sand from east to west. Then turning towards the south he said, "Friends and comrades, on that side are toil, hunger, nakedness, the drenching storm, desertion and death; on this side, ease and pleasure. There lies Peru with its riches; here, Panama and its poverty. Choose, each man, what best becomes

a brave Castilian. For my part, I go to the south." So saying he stepped across the line. The pilot and twelve others at once joined him, the remainder returned with the ships to Panama.

Some months later a ship arrived with supplies, and the Spaniards again set out for the south. They crossed the Equator and entered the harbour of Guayaquil. "The country was here studded along the shore with towns and villages, though the mighty chain of the Cordilleras, sweeping up abruptly from the coast, left but a narrow strip of emerald verdure, through which numerous rivulets, spreading fertility around them, wound their way to the sea." The townsfolk presented the strangers with fruit and corn, and also gave them a number of llamas, the "little camels" of the Indians. Still passing south, the Spaniards at last reached a point nine degrees south of the Equator, and then returned to Panama, full of excitement, to tell of the wonders they had seen.

The next few months were spent by Pizarro in a visit to the King of Spain, who gave him authority and help to embark on a course of conquest in the countries he had just discovered. In 1531 he sailed on his third and last voyage from Panama for Peru, taking three ships, about 180 men, and about 30 horses. Reaching a point just north of the Equator, Pizarro landed with his soldiers, having decided to march along the coast. The ships were sent on.

After a long march, during which many adventures took place, and much treasure was secured, the Spaniards reached a point whence it was proposed to set out for the interior. This was at the mouth of the Guayaquil river. The journey was begun in May 1532. Some leagues from the coast a settlement was made, and here a number of the soldiers were left. But Pizarro was intent on something better than settlement. He was determined to

reach and conquer the land of the Inca, the ruler of a wonderful people of whom Pizarro had heard much during his journeys along the coast. The territory of the Inca included all the vast plateau which was enclosed between the main chain of the Andes and the coast. Pizarro had been told of the immense wealth of the country, of its fertility and great buildings, and he was resolved to imitate the example of Cortes, who had won such riches in Mexico. Moreover he had probably heard that the rulers were divided against themselves, there being two claimants for the position of sovereign Inca. Pizarro was told of the position of the chief city, across the great range of the Andes.

As the march proceeded, many of the soldiers showed signs of discontent and fear. Pizarro resolved to deal with the danger at once. He gathered his men and told them that "no man should think of going forward in the expedition who could not do so with his whole heart," and that those who were unwilling might return to the settlement. Such was the effect of his example that only nine went back.

Some days later, an envoy came from the Inca, bearing presents, including "fine stuffs of woollen, embroidered with gold and silver," and assuring Pizarro of the anxiety of the Inca to meet him, at his city of Caxamalca, on the other side of the Andes. The mountains soon came into view, "rock piled upon rock, their skirts below dark with evergreen forests, varied here and there with terraced patches of cultivated garden, with their crests of snow glittering high in the heavens."

After days of difficult travelling, the troops saw before them the city, "like a sparkling gem on the dark skirts of the sierra." But it was surrounded by the dark tents of the Peruvian soldiers, and the hearts of the Spaniards were at first filled with fear, until they realized that they

must in any case proceed with their task now they had gone so far. The Peruvians were filled with wonder when they saw the glittering armour and magnificent horses of the invaders.

Pizarro resolved on a desperate step in order to put himself in a strong position. When the Inca arrived, full of curiosity to see his strange visitors, he was suddenly addressed by a Spanish priest and urged to accept the Catholic faith, but of course he could not understand a word of what was said to him. He seems to have thrown to the ground a service book which the priest gave him. At once the Spaniards fell upon him and seized him. He would have been killed but for Pizarro, who realized the value of keeping the Inca as a live captive. Such was the terror of the latter that he readily ordered that the temples of his country should be stripped of their gold to satisfy the Spaniards, promising to fill with treasure the room in which he had been placed. But on the arrival of the gold the Inca was put to death. The Peruvians were too awe-struck to offer resistance.

The rest of the story of the conquest of Peru must be read elsewhere. In 1534 the great city of Cuzco was captured, and the successes of the Spaniards caused a stream of their fellow-countrymen to enter Peru and Chile, so that a great Spanish Empire was founded in those parts of South America.

In 1540 Orellana, accompanied at first by the brother of Pizarro, made his way down the Amazon from the forests of the Andes to the mouth of the river. Thus was South America crossed from west to east for the first time.

CHAPTER XII

THE NORTH-EAST PASSAGE. WILLOUGHBY
AND CHANCELLOR

It has already been pointed out that the desire of the English to find a route to the East other than those routes which were under the control of foreign nations led to the attempt to find the North-west Passage. But the attempts had failed for the time being, and so it was that the minds of many navigators turned in the direction of the only alternative route, that is round the north of Norway and along the northern coasts of Europe and Asia.

At the time when this search for a "North-east Passage" began, English manufactures were growing rapidly, and so English merchants listened readily to the suggestions of Sebastian Cabot, then in England, that an expedition should be fitted out and sent to the North-east, both for trading purposes and to discover new lands. The merchants formed a company known as a "Merchant Adventurers' Company," for "the discovery of lands not before known to the English." Three ships and some pinnaces were prepared and were put under the command of Captain Sir Hugh Willoughby and Captain Richard Chancellor. On setting off, in 1553, they were given letters from King Edward VI to "the Kings, Princes, and other Potentates inhabiting the Northeast partes of the Worlde, toward the mighty Empire of Cathay." The rulers were urged to give the servants of the English King free passage, "for," proceeded the message, "they shall not touch anything of yours unwilling to you. Consider you that they also are men. If therefore they shall stand in neede of anything, we desire you of all humanitie, and for the nobilitie which is in you, to ayde and helpe

them with such things as they lacke, receiving againe of them such things as they shall be able to give you in recompense. Show your selves so towards them, as you would that we and our subjects should shew ourselves towards your servants, if at any time they should passe by our regions."

The travellers at first attempted to call at the Shetland Islands but were prevented owing to the violence of the wind. Crossing the sea, they reached the Lofoden Islands, off the coast of Norway. Here they met a Norwegian fisherman in a small boat, who answered their questions and advised them to sail into harbour and obtain a pilot, who would guide them on the next stage of their journey. "But when wee would have entred into an harbour, the land being very high on every side, there came such terrible whirlewinds that we were not able to beare in, but by violence were constrained to take the sea agayne."

The storm separated the ships, and Willoughby with two of them drifted on, losing all idea of his position, and "perceiving that the land lay not as the Globe made mention." He went round the north of Norway and passed, without knowing it, the place where all had agreed to meet in case of separation. He appears to have touched at the island of Novaya Zemlya and then turned west again, crossing the entrance to the White Sea and reaching the coast of Lapland. Here the travellers spent the winter, suffering greatly from the cold and from want of proper food. All of Willoughby's party perished, the ships being discovered at a later date.

In the meantime Chancellor had reached the appointed place of meeting, at Vardos, in Lapland. He waited here a few days and then decided to go on, because the winter was approaching, and he knew that it would be dangerous to delay further. Just before starting again he met a party of Scots, probably fishermen. They warned him of

the dangers he would have to face, but he refused to be dissuaded, "holding nothing so reproachful as inconstancie and levity of mind...determining either to bring that to passe which was intended, or else to die the death." Chancellor's crew, fired by his example, resolved to back him up. So he sailed on, "until he came at last to the place where he found no night at all, but a continuall light and brightnesse of the Sunne shining clearly upon the huge and mightie sea." Entering the White Sea, the travellers saw a boat containing some fishermen. The English ships endeavoured to approach the strangers, but the latter were afraid of the great vessel, and endeavoured to escape. They were, however, reassured by the courtesy of Chancellor and his companions, and then wished to "kisse his feet." The kindness of the English was of great service to them later on, because when it was reported in the country round, the "common people came together offering to these newe-come guests victuals freely, and not refusing to traffique with them, except they had been bound by a certaine religious use and custome, not to buy any forreine commodities, without the knowledge and consent of the King." Meanwhile the people sent a messenger to the Emperor to enquire with regard to what they were to do in the matter of the strangers. The messenger was told by the Emperor to invite the English to journey to the court, at the ruler's own expense, but it was so long before the messenger returned that the travellers had already started out. The journey "was very long and most troublesome." Sledges were used, "the people not knowing any other manner of carriage, the cause whereof is the exceeding hardnesse of the grounde, congealed in the winter time by the force of the colde."

While on their way, Chancellor and his companions met the messenger who had been sent to learn the wishes

of the Emperor. The answer of the latter had a great effect on the people, who were known as Muscovites. They gave the best possible attention to the travellers, who at last reached Moscow, "the chiefe citie of the kingdome, and the seat of the King." The latter entertained them with great splendour, and the visitors were much impressed with what they saw, they being the first Englishmen to enter the heart of Russia.

At length Chancellor, taking letters from the Emperor to the English Sovereign, returned to England. The letters, which announced the visit of Chancellor to the court of the Emperor, went on to say "we are willing that you send unto us your ships and vessells, when and as often as they may have passage, with good assurance on our part to see them harmlesse. And if you send one of your majesties counsel to treat with us whereby your country marchants may with all kinds of wares, and where they shall make their markets in our dominions, they shall have their free Mart with all kinds of wares to come and goe at their pleasure, without any let, damage or impediment."

The report which Chancellor gave as to the possibilities of trade with Russia were so favourable that the Company decided to fit out a second expedition in 1555. Agencies were to be set up in various parts of Russia, and trade was to be entered upon, either through the Emperor or directly with his people. In any case the traders were to see that they gained sufficient profit, having in mind "the notable charges that the companie have diffraied in advancing this voyage." They were also "to use all ways and meanes possible to learne how men may passe from Russia, either by land or by sea to Cathay, and what may be heard of our other ships, and to what knowledge you may come, by conferring with the learned or well-travailed persons, either naturall or forrein."

This voyage was again a success, and Chancellor remained in Russia through the next winter, the main expedition returning to England. A third expedition set out in 1556, and when it reached the coast of Lapland the remains of Willoughby's ships were found. Chancellor came north from Moscow to reach his friends, and after some trading had been carried on he returned on one of the ships, in company with an ambassador of the Russian Emperor. On the ship were "waxe, trane oyle, tallow, furies, felts, yarne and such like, to the summe of £20,000, together with 16 Russies attendant upon the person of the said Ambassador." Disaster overtook the travellers, and two of the four ships perished off the coast of Norway. A third ship did not reach the Thames for many months, while the fourth, with Chancellor on board, was wrecked off the coast of Scotland. The captain perished, and the cargo was seized by the Scots. The ambassador at length reached the city of London, where he was well received by the citizens, and by King Philip and Queen Mary, who were then reigning. Friendship was thus firmly established between England and Russia.

The development of trade with Russia, and the great obstacles in the way of navigation round the north of the Old World, prevented much progress being made with the problem of the North-east Passage. One or two daring sailors reached points further east than Willoughby had reached, but it was not till 1879 that a steamer actually made its way by that route from the North Sea into the Pacific Ocean.

CHAPTER XIII

JOHN HAWKINS AND THE EARLY VOYAGES
OF DRAKE

The conquests and settlements of the Spaniards in the New World were followed by a great growth of traffic between those countries and Spain. Treasure poured into the European possessions of the Spanish monarch, but strict regulations were made to ensure that none but Spaniards should share in the profitable trade that went on.

The English had done little since the voyages of the Cabots to fix a hold upon any part of the New World. There were other directions, such as the Mediterranean, in which they could make sure of returns for any trouble they might take. Moreover the monarchs of England and Spain were outwardly friendly, so that the English seamen had to avoid anything which might be resented by the Spanish King.

But it is always difficult to confine trade to particular channels, especially when traders know of new openings which promise well. The difficulty of obtaining sufficient labour on the sugar plantations of the West Indies caused the Spaniards much anxiety. Thus it was that when John Hawkins, whose father had made several voyages to Brazil, heard that negroes "were very good merchandize in Hispaniola, and that store of Negroes might easily be had upon the coast of Guinea," he determined to begin a traffic in slaves between Africa and the Spanish possessions.

On his first voyage, in 1562, Hawkins managed to obtain, "partly by the sword, and partly by other means," 300 negroes. These he sold in the West Indies. He

obtained in exchange "hides, ginger, sugar, and some quantity of pearls." He sent a quantity of hides to be sold in Spain, but the authorities there would not allow any trading with the English to take place.

In 1564 Hawkins made a second voyage. This time he had some difficulty in inducing the Spaniards of Venezuela to trade, as they were afraid of the anger of the governor. Their unwillingness, however, was not very strong, for they greatly desired the slaves. Coasting along the Caribbean Sea, and visiting Jamaica and Cuba, Hawkins at length managed to get rid of all his slaves. He passed the coast of Florida, where he found a group of French settlers. Leaving here, the ships were driven by the prevailing westerly winds north-eastwards along the coast of North America, to Newfoundland, whence they returned to Europe. This was the first time Englishmen had sailed along the coast of the future United States.

The third, and in some respects the most important, voyage of Hawkins began in 1567. With increasing difficulty he managed to dispose of his cargoes of slaves. But the process of selling had delayed him considerably, so that the hurricane season began before he had left the zone of danger. His ships went for refuge into the harbour of St Juan de Ullua, on the coast of Mexico.

Now among the captains of the other ships in the little fleet was Francis Drake, who commanded his own vessel, the *Judith*. Drake had spent his early manhood as an apprentice on a ship which traded in the North Sea. He had then become one of the band of English traders on the west coast of Africa, and had made a considerable amount of money there. When Hawkins went on his third voyage Drake joined him on the *Judith*.

It happened that the Spanish settlers on the mainland at San Juan were expecting a Spanish fleet. They were

much afraid on finding their mistake, "but," says Hawkins, "immediately when they saw our demand was nothing but victuals, were recomforted." There were treasure-ships in the harbour, but Hawkins did not plunder them. He also sent word to the governor, who was at Mexico, 200 miles inland, asking for permission to refit and to obtain food.

Just afterwards the Spanish fleet "of thirteen great ships" appeared outside the harbour. Hawkins refused to allow them to enter until they agreed to refrain from attacking the English. But, shortly after being admitted, the Spaniards treacherously attacked the English ships, and also a party which had landed on the narrow neck of land which almost closed the entrance to the harbour. Eventually only Drake's ship and one other escaped.

Drake's ship, the *Judith*, sailed straight for home. The other boat, the *Minion*, was far too full of men for the supplies that it contained. "So thus, with many sorrowful hearts, we wandered in an unknown sea by the space of fourteen days, till hunger forced us to seek the land." At their own request one half of the men were put ashore. The boat then went on its way, reaching the coast of Spain six weeks after leaving the coast of Florida. Mount's Bay, Cornwall, was reached in January 1568.

"If all the miseries and troublesome affairs of this sorrowful voyage should be perfectly and thoroughly written," says Hawkins, "there should need a painful man with his pen, and as great a time as he had that wrote the lives and deaths of the martyrs." Yet the voyages of Hawkins were really important, because they showed that it was impossible for the English to hope for any peaceful share in the trade with the West. From this time onwards English seamen and Spaniards were in constant opposition in the New World.

Francis Drake had lost much of his little fortune in

the attack of the Spanish ships at San Juan. On his return to England he described the wrongs which he said the Spaniards had done to the English, and so he roused strong feelings against the Spaniards. He resolved to find out more about the Spanish possessions and then to take his revenge. He first made two preliminary voyages to the Indies and then returned to make preparations for a direct attack on the Isthmus of Darien, in the heart of the Spanish Main.

In 1572 he set out with two ships and a few small pinnaces, the latter in sections, to be put together when required. Landing at a suitable point on the coast, a strong little fort was built, and the small pinnaces were prepared for work. Drake had heard that the treasures of Peru were taken in galleons up the west coast to the Isthmus of Darien, and were then packed on the backs of mules and carried across the Isthmus to the Atlantic side, there to be placed on ships for conveyance to Spain. The port on the Atlantic side of the Isthmus was Nombre de Dios, and it was to seize the treasure at this place that Drake made his first plans.

Arrived at the treasure port, Drake soon drove away the greater number of the terror-stricken Spaniards. He was just about to break open the treasure-house in the town when he fell, badly wounded. His men bore him to the boats, for his life was more precious to them than all the treasure they were seeking. During the next few weeks the English sailors captured many Spanish ships, and plundered many places on the coast in spite of all the efforts made by the Spaniards to prevent these doings.

There was, in the interior, an Indian tribe known as the Cimarrons, and these people were very hostile to the Spaniards, who had treated them badly. Drake secured the friendship of these natives, and they agreed to help his schemes. After a long interval of waiting, the Indians

reported that the fleet which was to carry the treasure across to Europe was at Nombre de Dios. Consequently the treasure would shortly be on its way across the Isthmus. Drake determined to seize it while on this stage of its journey.

With a body of about fifty men, including thirty Indians, Drake started on this desperate attempt. The way from the coast was up a gradual incline and through magnificent forests. At one point on the way the English captain was shown, from a tall tree, a view of both the Atlantic and Pacific Oceans. Drake was filled with a longing to sail his ships upon the great ocean to the South, and vowed that he would do so some day.

Soon afterwards the little force halted at a point where it seemed easy to ambush the train of mules now coming from Panama. But owing to the indiscretion of one of his men, the alarm was given, and the Spaniards kept the treasure back at Panama, sending forward only a few mules with nothing of value on their backs. Thus Drake was again disappointed. Yet another attempt was made on a mule-train near Nombre de Dios, and this time a large amount of treasure was secured.

At last Drake felt that he had secured enough for his immediate purposes, and so he sailed back, with his two remaining ships, to England. He reached home on August 19th, 1573, and he received a hearty welcome from his friends and fellow-townsmen. But the Queen was displeased because Drake's conduct was making it difficult to keep the peace with Spain.

After four years, the damage done to English ships by the Spaniards caused the Queen to agree to Drake's plan of leading a small fleet into the Pacific, and there attacking the Spanish towns and galleons. Elizabeth's ministers did not approve of this scheme, but she gave Drake secret help. Others, too, contributed money and

encouragement, and so Drake secured ships for the voyage to which he had looked forward since he first beheld the Pacific from the tree on the Isthmus of Darien.

CHAPTER XIV

DRAKE'S VOYAGE ROUND THE WORLD

Drake left Plymouth on November 15th, 1577. He had with him the *Pelican*, which was his own flagship, the *Elizabeth*, the *Marigold*, and the *Swan*, as well as a small pinnace. The beginning was somewhat unlucky, for as soon as they reached the open Channel a storm broke and they had to return to Plymouth for repairs. It was December 13th before the final start was made.

Twelve days later the coast of Marocco was reached. The inhabitants appeared friendly, but by a trick they succeeded in capturing one of the English sailors. The little squadron passed southwards along the coast of Africa until the Cape Verde Islands were reached. "Here," says one of Drake's companions, "we gave ourselves a little refreshing, as by very ripe and sweet grapes, which the fruitfulness of the earth at that season of the year yielded us; and that season being with us the depth of winter, it may seem strange that those fruits were then there growing. But the reason thereof is this, because they being between the tropic and the equinoctial, the sun passeth twice in the year through their zenith over their heads, by means whereof they have two summers; and being so near the heat of the line they never lose the heat of the sun so much, but the fruits have their increase and continuance in the midst of winter."

Several of the islands in this group were passed, and

near one of them a wine-ship was captured. Gradually the fleet neared the Equator, where they were "becalmed the space of three weeks, but yet subject to divers great storms, terrible lightnings and much thunder." For fifty-four days there was no sight of land, and then the coast of Brazil was reached, at latitude 33° south. Here the natives tried to bring about the wreck of the fleet by making sacrifices to "devils," and by making "heaps of sands, and other ceremonies."

Passing further south, the fleet entered the River Plate, where fresh water was obtained. Some miles further a good harbour was found and seals became plentiful. Drake had now reached the coast of Patagonia, and "the people of the country showed themselves unto him, leaping and dancing, and entered into traffic with him; but they would not receive anything at any man's hands, but the same must be cast on the ground."

On reaching St Julian, the harbour in which Magellan had wintered, and where he had been compelled to punish certain mutineers, Drake found it necessary to hold an enquiry into the conduct of Captain Doughty, one of his chief companions. Doughty had been a source of great anxiety to the Admiral, and he was formally tried, "as near as might be to the course of our laws in England." He was found guilty, and after receiving Communion by the side of his Admiral he was executed, "otherwise the success of the voyage might greatly have been hazarded."

After two months' stay at St Julian, the squadron, now reduced to three ships, set out for the Straits of Magellan, which were reached three days later. They found the straits had "many turnings, and as it were shuttings-up, as if there were no passage at all." It was difficult to find anchorage, owing to the depth of the water. The height of the mountains amazed them all, as they had amazed Magellan and his men. The straits varied

much in width, and there was great difficulty in finding a way through the tortuous windings. At one point an island was found, with "great store of fowl which could not fly, of the bigness of geese; whereof we killed in less than one day 3000, and victualled ourselves thoroughly therewith."

After sixteen days the "South Sea" came in sight. The *Pelican*, now renamed the *Golden Hind*, led the way into what Magellan had called the Pacific Ocean. But to Drake and his companions the great ocean showed a very different aspect. A great gale drove them away to the south-west. During this gale the *Marigold* sank with all its crew. Beating their way slowly back, the travellers again reached the islands which lie off Tierra del Fuego, "in one of which was such plenty of birds as is scant credible to report." The *Elizabeth* meanwhile lost touch with the *Golden Hind*, and its captain set out for England.

Drake had no intention of giving up his voyage, even though he had now only one ship left. He sailed northwards along the coast of Chile, and at length reached a region where the Spaniards had earned for themselves the fear and hatred of the native Indians. From the latter Drake heard that a Spanish treasure-ship was at anchor in the harbour of Valparaiso. Sailing there forthwith, he found the ship in the hands of so small a crew that he captured it without any difficulty. Of course the Spaniards never dreamed of English seamen appearing on that coast. The few Spaniards who were in the town fled when Drake landed. Some plunder was obtained, and then, under the pilotage of a Greek who lived there, the English set out for the harbour of Lima.

The Valparaiso ship had yielded plenty of wine and gold, and the English were tempted to land at several points along the coast. At one place they were attacked

by the Spaniards, but at another, "being landed, we found by the sea side a Spaniard lying asleep, who had lying by him thirteen bars of silver. We took the silver and left the man." At yet another place they landed and captured eight llamas, "or sheep of Peru," each laden with fine silver. At Arica were three small ships. "We found not one person; for they, mistrusting no strangers, were all gone to the town."

At Lima were twelve ships. Drake plundered these, finding plate "and good store of silks and linen." Here, too, he heard that a great treasure galleon had gone north to the Isthmus of Panama. Hurrying after this prize, he at length caught her, and a greater store of plunder than ever was the result. "We boarded her, and shot at her three pieces of ordnance, and strake down her mizen; and, being entered, we found in her great riches, as jewels and precious stones, thirteen chests full of plate, fourteen pound weight of gold, and six and twenty ton of silver."

After capturing other ships and stripping them of their valuables, Drake began to think himself "sufficiently satisfied and revenged." He thought it well to plan his return. The question was whether it would be wise to go back through the Straits of Magellan. He decided against such a plan, partly because he knew the Spaniards would be on the watch for him, and partly because he did not like the dangers of a voyage through those stormy straits. So he resolved to cross the Pacific to the Spice Islands, and thence to make his way round the Cape of Good Hope.

It was first necessary to continue north for a long distance, in order that winds might be met favourable to the contemplated voyage. For six weeks the *Golden Hind* voyaged on, the air becoming cold almost beyond what the men could bear. At length a point was reached

where there was a "low plain land," and "a fair and good bay." This was the bay on which the town of San Francisco now stands, and was far north of any point yet reached by the Spaniards.

The natives were full of interest and surprise on seeing the English. They persuaded themselves that the visitors were gods, and insisted on disfiguring themselves as a sign of sacrifice. Their King willingly submitted to Drake, and allowed him to take possession, formally, in the name of the Queen. Drake, who called the country "New Albion," recognized its suitability for settlement. On his departure "he set up a monument of being there, as also of Her Majesty's right and title to the same; namely, a plate, nailed upon a fair great post, whereupon was engraved Her Majesty's name, the day, and hour of arrival there, with the free giving up of the province and people into Her Majesty's hands, together with Her Highness' picture and arms, in a piece of sixpence of current English money, under the plate."

Leaving this inviting country, Drake set out across the broad Pacific. For nearly seventy days the *Golden Hind* went straight upon its course. At the end of this time the Philippines were reached, this being the region in which poor Magellan had met his fate. Thence Drake sailed for the Moluccas, or Spice Islands. The King of one of these islands was very friendly to Drake. He visited the Englishman dressed "in white lawn of Calicut," and attended by many young men in similar attire. The natives bore presents of "rice, hens, sugar, plantains, and cloves."

The King's visit was returned by Drake. He found every mark of great wealth and also noticed that there were resident agents who traded for merchants of southern Europe. The merchants were Mahommedans. But though the English found the island very fascinating

Drake thought it wise to proceed on his journey. At one island they noticed "that amongst the trees, by night, did show themselves an infinite swarm of fiery worms flying in the air, whose bodies being no bigger than our common English flies, make such a show and light as if every twig or tree had been a burning candle."

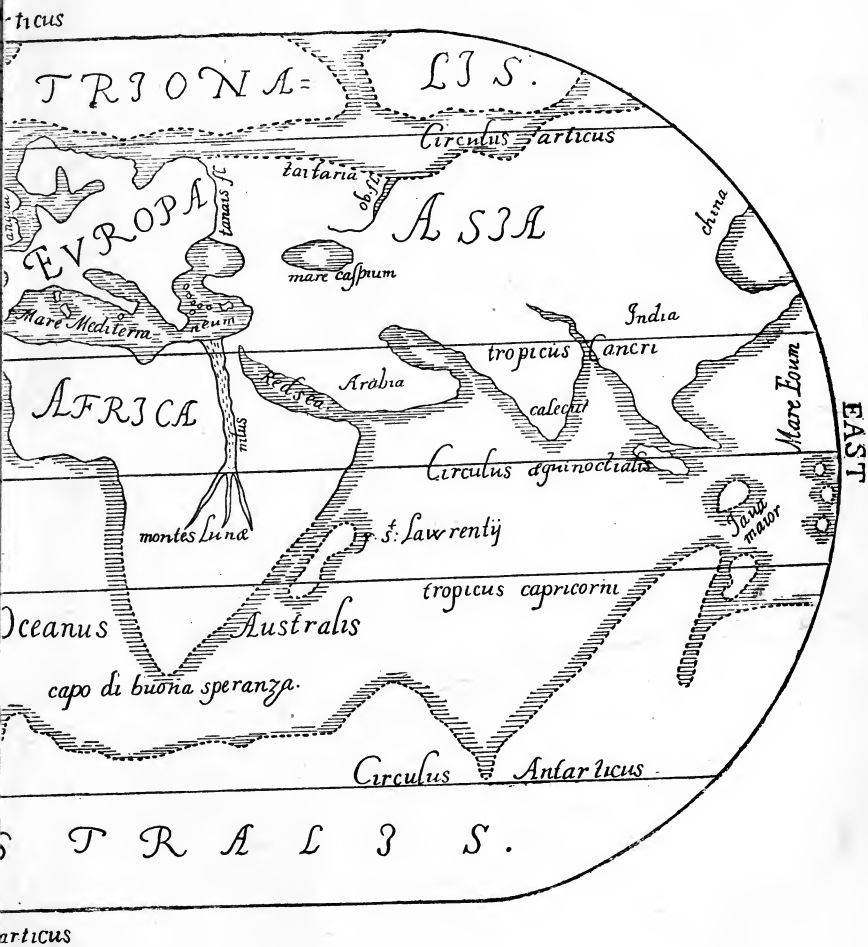
It was difficult work to find a passage through the numerous islands of those regions. At one place the ship struck on a rock, and remained fast for hours, but at length floated off. Calling at a few islands, notably Java, where he was much impressed by the skill of the natives in cooking food, Drake sailed south-west to the Cape of Good Hope, "which was the first land we met, neither did we touch with it, or any other land, until we came to Sierra Leone, upon the coast of Guinea."

On November 3rd, 1580, the *Golden Hind* entered the harbour of Plymouth after her three years voyage, and Drake received knighthood on his ship at the hands of the Queen, a fitting reward for his gallant services. He was the first Englishman who had ever sailed round the world.

CHAPTER XV

MARTIN FROBISHER

Since the failure of John Cabot to find a channel leading from the north-west of the Atlantic to Asia no attempts had been made to resume the search. For a time English attention was directed to the north-east, where Willoughby, Chancellor, and others tried to find a route to the land of Cathay. But in 1574 Sir Humphrey Gilbert published a work in which he sought "to prove a passage by the North-west to Cathay, and the East





Indies." Two years later, Martin Frobisher, who had sailed to the west of Africa and round the coasts of Ireland, decided to test the value of Gilbert's idea.

The Queen wished him success and gave him authority to set out, she herself waving farewell to the little expedition as it set sail from the Thames on June 8th, 1576. There were but two ships, the *Gabriel* and the *Michael*, with a small pinnace. They sailed round the north of Britain, past the Orkneys and Shetlands, and on July 11th sighted the coast of Greenland, "rising like pinnacles of steeples, and all covered with snow." The coast was so packed with ice that no landing was possible. They next came near the coast of Labrador, but again a landing was impossible. Near this place they approached an iceberg, which "fell one part from another, making a noise as if a great cliff had fallen into the sea."

Soon afterwards they found an island on the shore of which a number of people were standing. These were induced to visit Frobisher's ship, "being nineteen persons, and they spake, but we understood them not. They be like to Tartars, with long black hair, broad faces, and flat noses, and tawny in colour, wearing seal-skins. Their boats are made all of seal-skins, with a keel of wood within the skin."

Meantime, as a result of storm and mists, the pinnace had been lost, and the *Michael* slipped away secretly for home, taking the false news that Frobisher and the *Gabriel* had been cast away. In spite of these disasters Frobisher struggled on, "determined at the least to bring true proof that land and sea might be far to the north-westwards, beyond any that man hath heretofore discovered." He reached the south-east of Baffin Land, and when the ice had somewhat reduced in amount he entered what appeared to him a strait, but what was really an inlet on the coast of Baffin Land. "He passed above

fifty leagues therein, as he reported, having upon either hand a great main or continent. And that land upon his right hand as he sailed westward he judged to be the continent of Asia, and there to be divided from the land of America, which lieth upon the left hand."

Now Frobisher felt quite certain that he had discovered the desired passage between North America and Asia, and since Magellan had given his name to the straits he had discovered to the south of America so Frobisher gave his name to the waterway he had discovered. The "strait" is now marked on the map as Frobisher Bay.

"Being ashore upon the top of a hill, he perceived a number of small things floating in the sea afar off, which he supposed to be porpoises or seals, or some kind of strange fish; but coming nearer, he discovered them to be men in small boats made of leather." Frobisher bartered with these men, obtaining skins of seals and bears in exchange for bells and looking-glasses. But they were treacherous people, for when five of Frobisher's men ventured ashore they were captured by the Eskimos and never seen again.

Frobisher was determined to take one of the strangers home with him, as a token of his discoveries, but he had great difficulty in capturing one. He managed to do so at last by tempting one to come within reach by dangling a bell before him. The native greatly desired the bell, and when he made a move to reach it, Frobisher let it fall and caught the man fast, "and plucked him with main force boat and all," out of the sea into the ship. "Whereupon when he found himself in captivity, for very anger he bit his tongue in twain within his mouth; notwithstanding he died not thereof, but lived until he came in England and then he died of cold which he had taken at sea."

Frobisher reached England in October 1576, and was

congratulated by all, especially "for the great hope he brought of the passage to Cathay." He and his men had collected various articles of interest in the northern lands. Among other things was a piece of black stone, which, though heavy, seemed of little value. But by an accident the stone came to light in London, and was declared to contain gold. At once there was great excitement, and many urged Frobisher to take out another expedition to bring back more of the black stone.

"Thus preparations were made for a new voyage, and the captain was more especially directed for the searching and discovery of the passage." Frobisher left London in May 1577, having one of the Queen's ships, the *Aid*, and the *Gabriel* and *Michael*. The voyage took the same direction as before, except that the ships made direct for Frobisher's Strait after passing the south of Greenland. They marvelled at the abundance of fish in the seas round about, as well as at the great number of icebergs. "It is a marvel to behold of what great bigness and depth some islands of ice be here, some seventy, some eighty fathoms under the water, besides that which is above, seeming islands above half-a-mile in circuit. All these are in taste fresh, and seem to be bred in the sounds thereabouts, or in some land near the pole, and with the wind and the tides are driven along the coasts."

After some delay, owing to ice, the strait was entered and the search for the precious stone began. After considerable trouble a sufficient load was collected. Meanwhile conflicts took place with the natives. The captain of the *Michael* declared he had seen traces of the five men who were lost on the previous voyage, but all search for the missing people failed.

The land south of the strait was formally taken possession of in the name of the Queen, and soon afterwards the voyage home began. There were storms and

heavy seas, so that the *Michael* became separated from the other ships and reached England at a different time, at Yarmouth. The others also drifted apart but at length all reached London. Frobisher reported to the Queen the success of his voyage, especially in the matter of the ore, and was commended by her, in particular "she rejoiced very much, that among them there was so good order, every man so ready to do whatever the General should command." The land discovered by Frobisher was to be called "Meta Incognita," because it was unknown before.

It was decided to send a third expedition under Frobisher, with fifteen ships, and a number of volunteers who were willing to settle in the new land. The voyage began in May 1578, and by the beginning of July the strait was again reached. But bad weather caused Frobisher to miss the entrance, and for some time his fleet was driven into Hudson's Strait, thus accidentally following the right course for Cathay. Eventually they found their way back to Frobisher's Strait, with the loss of many ships. More ore was taken on board, and as the season was late it was decided to sail for home, without staying to make further discoveries.

When the fleet, scattered by storms, arrived in England, it was to find that the ore had been proved to be valueless. Thus Frobisher's work was no longer looked upon as of any practical use. He had begun by attempting to solve a problem in geography, and had been led aside from his main object, like so many others of that age, by the desire to grow rich quickly. Nevertheless he had shown himself a brave and determined explorer, and he had added greatly to men's knowledge of the Frozen North.

CHAPTER XVI

THE NORTH-WEST PASSAGE. DAVIS,
HUDSON AND BAFFIN

John Davis.

Although Frobisher had not succeeded in his main object, that of finding a North-west Passage to Cathay, many of the leading English merchants and navigators still believed in the possibility of success. The next stage in the work was accomplished by Captain John Davis. A native of Devon, which has produced so many of the greatest English seamen, Davis was a neighbour and companion of the Gilberts. In 1585 he agreed to lead an expedition to the North-west. The chief friend of the expedition was a Mr William Sanderson, a merchant of London, who spared no money to make it a success. In so acting, Mr Sanderson was only following the example of many of the merchants of Elizabeth's days. They were always willing to risk their money in any venture which promised to extend the field of commerce and to bring a suitable return.

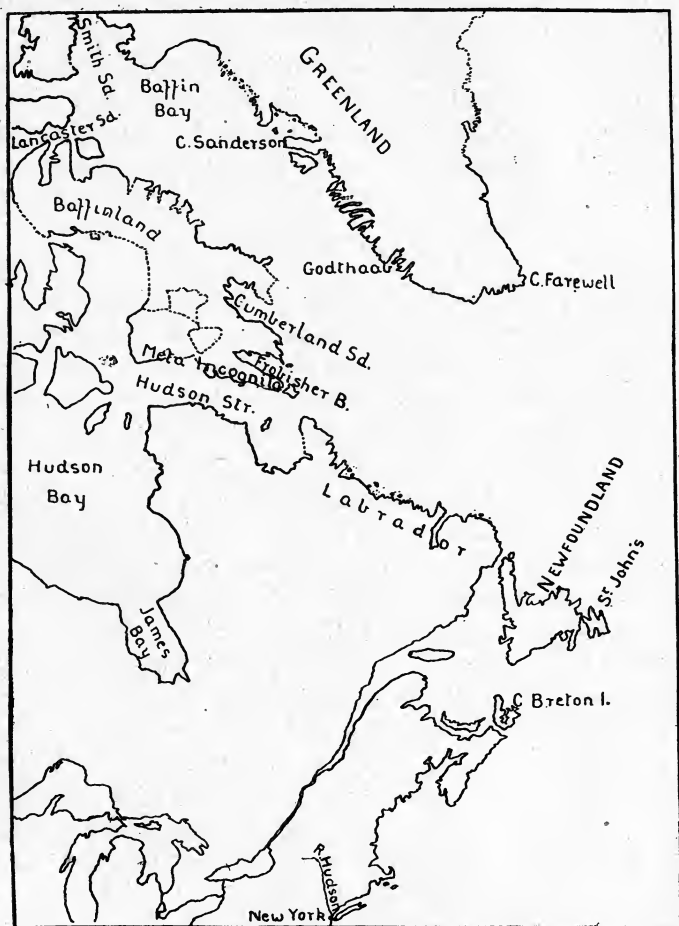
Davis and his men started in 1585, with two small vessels, the *Sunshine* and the *Moonshine*. They first visited the Scilly Isles, where Davis spent twelve days, carefully making a chart of the seas round about. They then crossed the Atlantic, being amazed at the great numbers of porpoises and whales which they met. Twenty-two days after leaving Scilly they reached the east coast of Greenland, "which was the most deformed, rocky, and mountainous land that ever he saw...the tops altogether covered with snow, and the shore beset with ice, a league off into the sea. The captain named it the land of Desolation."

Sailing round Cape Farewell, the ships turned north, along the west coast of Greenland, though the land was not visible until a point was reached about 64 degrees north. Here they found an opening which they named Gilbert Sound. It is on this opening that the town of Godthaab stands. On landing, the Englishmen found traces of people. At length, the inhabitants were seen, and made a noise "like the howling of wolves." The sailors brought their musicians, and caused them to play, "ourselves dancing and making many signs of friendship." The natives were shy, but by careful imitation of their attitudes, especially in what appeared to be an act of worship towards the sun, the sailors induced them to approach. Eventually trade for furs and skins was entered into. "We were in so great credit with them upon this single acquaintance, that we could have anything they had."

The land in this part was more promising than any they had found in the south of Greenland, there being "many green and pleasant isles bordering upon the shore." Learning from the natives that there was a great sea to the north and west, Davis set out again, after "using the people with kindness in giving them nails and knives, which of all things they most desired." He expected to reach China, but actually crossed the strait which bears his name in the maps of to-day. He found a long opening leading into a land which he reached on the other side of the strait. This opening was Cumberland Sound, "which we supposed to be our hoped strait." It was too late in the year to explore further, so the mariners returned to London, where the report of their supposed success in finding the desired Passage aroused great interest.

Arrangements were at once made, principally by the aid of merchants of Exeter, for a second voyage. This took place in 1586. The mariners were to follow the

strait until "they found the same to fall into another sea upon the west side of this part of America, for then it



Early Voyages in search of the North-west Passage

was not to be doubted, but shipping with trade might safely be conveyed to China." On arrival at the south of Greenland, two of the four ships sailed up the east

coast. The other two, with Davis, again reached Gilbert Sound. The Eskimos were friendly, but one of the ships at once returned home, sickness having broken out. Davis was determined to proceed with his enquiries, and crossed the strait. He passed south, finding a big opening to the west, which he thought might be a passage, "for," he says, "no doubt the north parts of America are all islands." A glance at the map will show how correct this idea was.

Henry Hudson.

In 1607 Hudson, the successor of Davis in the search for the North-west Passage, began a series of remarkable voyages by sailing north along the east coast of Greenland and proving the impossibility of finding any ice-free passage between that land and Spitsbergen. But, like Davis, he was the means of bringing to notice the possibilities of the whale and walrus fisheries in that region.

In 1608 Hudson visited Novaya Zemlya, and tried to take up the search for the North-east Passage, which had baffled many since the days of Willoughby and Chancellor. This attempt failed, and the following year Hudson entered the service of the Dutch East India Company. They sent him to Novaya Zemlya again, and from there he sailed to the coast of North America. Passing southward along this coast, he discovered the wonderful river which bears his name and at the mouth of which New York, formerly New Amsterdam, now stands. This discovery led to the formation of Dutch settlements there, which were conquered by the English in the reign of Charles II.

In 1610 Hudson, who had been commanded to leave the service of the Dutch, was sent out in the *Discovery*, to find if "through any of those inlets which Davis saw but durst not enter" a passage was possible to "the other

ocean, called the South Sea." His crew was not a very reliable one, his chief mate proved himself treacherous, and others were unfit to go on so risky a voyage. Hudson's young son accompanied him.

On the way across the Atlantic, Iceland was reached. There was abundance of food to be obtained, and the men were loth to leave the pleasant hot springs of that wonderful island. But Hudson was anxious to find again the beautiful land he had seen on his last voyage. Strong gales and currents drove the ship too far to the northwest. The "Desolation Cape" of Davis, now Cape Farewell, was passed, and in a few days the Hudson Strait was entered. On the right was the "Meta Incognita" of Frobisher, on the left the north of Labrador. Soon the ship turned south into Hudson Bay, and passed along the east coast until the extreme south of James Bay was reached.

For four months the little ship appears to have been driven about in James Bay, for no one knew what lay to the west. At last the waters froze, and the dread winter of the North settled down on the frightened crew and their brave captain. Food ran short and the crew became openly mutinous. When the ice at length broke, the ship started for home, but after a few days it was again enclosed in the ice. The crew placed poor Hudson and his boy, and also those of their own number who were too weak to be of service, in a small boat. Thus, with barely any food on board, the tiny boat was cut adrift, and floated into the Unknown. Its occupants were never again heard of, though efforts to trace them were made after the return of the mutineers to England.

William Baffin.

This part of the story of northern exploration may be concluded fitly by a brief mention of William Baffin, who

made several voyages to the Arctic between 1612 and 1614. He acted as pilot to a captain named Bylot, who had been one of Hudson's companions, in a voyage to Hudson Strait in 1614. The result of this voyage was to convince Baffin that there was no chance of a passage being discovered to the west of the strait. During this voyage the land to the north of the strait was visited, and many years later it received the name of Baffin Land.

In 1616 Baffin was sent as pilot again to follow up the route taken by Davis. He visited the west coast of Greenland, and passed Cape Sanderson, the point which marked the "farthest north" of Davis. He explored Baffin Bay to the entrance of Smith Sound, and then returned south past the entrance to Lancaster Sound, which he did not believe would be the desired passage. Perhaps it was blocked with ice when he saw it.

CHAPTER XVII

GILBERT AND RALEGH

The voyages of Hawkins and Drake to the shores of the Gulf of Mexico and the West Indies had increased the interest of the English with regard to the lands lying between Spanish settlements and the fishing grounds of the Newfoundland region. A French explorer had previously sailed along the east coast of North America and had proved that the land was continuous in that direction. Englishmen began to think that this region, forming the east of what is now the United States, would be a suitable one in which to make settlements, especially as they considered that the voyages of the Cabots gave them some claim to the region.

One of the chief teachers of this idea was Sir Humphrey Gilbert, and in the work he was helped and encouraged by his famous step-brother, Sir Walter Raleigh. In 1578 Gilbert was given a patent, or royal authority to hold any lands in those parts which he might discover. He sailed on his first voyage in that year, but the attempt failed. In 1583 he set out on his final attempt, taking with him five ships, varying in size from 10 to 200 tons. Gilbert himself was on the *Delight*, the others were the *Raleigh*, the *Golden Hind*, the *Swallow*, and the *Squirrel*. There were about 260 men in all, including skilled workers in stone, metal, and wood. "Besides," writes one of the company, "we were provided of music in good variety; not omitting the least toys, as morris-dancers, hobby-horses, and May-like conceits to delight the savage people, whom we intended to win by all fair means possible."

Two days after the start, the *Raleigh* deserted and returned home. The outward journey was delayed by contrary winds and fogs, during which the *Swallow* and *Squirrel* parted company with the others. Icebergs were seen, carried southwards, "whereby may be conjectured that some current doth set that way from the north." This was the Labrador Current, which still sends its "mountains of ice" south, to the danger of our ships.

A seven weeks voyage brought the travellers to the coast of Newfoundland. In one of the numerous bays of that coast the *Swallow* was found again, while in the harbour called St John's the *Squirrel* was seen at anchor. The merchants engaged in the fishing had refused to allow the vessel to enter the harbour, but when Gilbert produced his commission there was immediate willingness to admit the ships and furnish them with all necessaries. "In so much as we were presented, above our allowance, with wines, marmalades, biscuit, sweet oils, and sundry delicacies."

Gilbert formally took possession of the harbour of St John's, "and 200 leagues every way," in the name of the Queen.

A careful examination of the resources of the district revealed great possibilities. There were fish and fowl in abundance, animals covered with rich fur, trees valuable for their timber and for products such as gum and turpentine, and even signs of abundance of mineral ore. There were fruits and grass, but Gilbert gathered that although the climate was warm and pleasant in summer, the cold of winter was great.

At last Gilbert resolved to sail further south. For one reason, many of the men were showing themselves to be without any control. They were acting as pirates, breaking the rules which Gilbert had drawn up for the benefit of the colony, and even attempting treachery against him. The *Swallow* was sent home direct, with the sick and the less courageous. Gilbert sailed in the *Squirrel*, with the other two ships. The *Squirrel* was heavily laden with gums and other stores.

At first it was intended to sail to Cape Breton Island, but the water became too shallow as the island drew near, and the *Delight*, which had most of the supplies on board, was wrecked, and most of the crew were lost. Reluctantly Gilbert agreed to return home, promising himself and the others that he would again visit those parts the following year. As the voyage proceeded it became clear that the overladen *Squirrel* was in great danger of being swamped. Gilbert was begged by his men to change into the *Golden Hind*, but said, "I will not forsake my little company going homeward, with whom I have passed so many storms and perils."

Shortly after passing the Azores the sea became very rough. Those on the *Golden Hind* caught a glimpse of Gilbert "sitting abaft with a book in his hand," perhaps

the Bible, and crying out as they approached within hearing, "We are as near to heaven by sea as by land."

"The same night, about twelve of the clock, the frigate being ahead of us in the *Golden Hind*, suddenly her lights were out, and our watch cried the General was cast away, which was too true." Not a word was ever heard again of the brave Gilbert, who had remained firm "in a purpose by all pretence honest and godly, as was this, to discover, possess, and to reduce unto the service of God and Christian piety those remote and heathen countries of America not actually possessed by Christians."

Sir Walter Raleigh.

Mention has been made of the help which Sir Walter Raleigh gave to his step-brother, Gilbert, when the latter was preparing for his voyage to Newfoundland. Raleigh also helped in finding the money necessary to send a party of colonists to the coast of what is now North Carolina. To this settlement was given the name of Virginia, in honour of Queen Elizabeth. One result of the journeys to Virginia was the introduction of tobacco and potatoes into England.

But even more interesting than this was a famous journey which Raleigh made in search of the fabled land and city of El Dorado, which was supposed to be in Guiana, in the north of South America, and where there was supposed to be abundance of gold. It was said that somewhere in the valley of the Orinoco was an unconquered land which was richer far than even the vast empires of Peru and Mexico, which had already been conquered by the Spaniards. The ruler was said to live in a palace of gold, close to the waters of an enormous lake. There was probably some reason for these stories, for it is known that Guiana is rich in gold, and that its

use for ornaments was common in those days. In the rainy season, too, the rivers overflow their banks and might well give the idea that they were a great inland sea.

Raleigh set sail in 1595, starting with five ships and reaching Trinidad six weeks later with only two, two others rejoining later. While here he saw the famous pitch lake. This measures a mile and a half across, and is solid except when softened by the heat of the sun. For the actual journey up the Orinoco Raleigh took about a hundred men, with provisions for a month. He left the ships behind, going on with five small boats.

An Indian pilot guided them through the many branches of the Orinoco delta. The Indians rather resented the appearance of the little fleet. These natives lived in houses on the ground in the dry season, but in the rainy season they had houses built in the forks of tall trees, high enough to be free from the danger of flood. The journey was a very trying one. The heavy rains, together with the great heat, made the work of pulling the boats against the strong current of the river particularly difficult to the English sailors, who suffered much discomfort. They grew sulky, and threatened mutiny. Only by constantly assuring them of the nearness of success could Raleigh induce them to proceed.

Reaching the main stream of the delta, the travellers found much to admire in the beauty of their surroundings. Fruits and fish were plentiful, and flocks of parrots, and numbers of musk-ducks, "all colours, carnation, crimson, orange, tawny, purple, green, spotted and striped," provided tasty soup. Raids were made on native villages, in order to replenish their supplies, and the discovery of gold dust, in an Indian basket, encouraged further efforts. Soon the mountains of Guiana came in sight, and the natives, hearing that the visitors were not Spaniards, gave them turtles' eggs, wine, bread and fruit.

Passing further up the Orinoco, between high rocks at first, there soon appeared "low banks of deep red soil, and fertile undulating plains." Thus Raleigh had reached the llanos, the fertility of which makes them one of the best parts of South America. At the junction of the Caroli (Karoni) with the Orinoco were seen magnificent waterfalls, the roar of which was heard long before the falls themselves were seen.

The river was now beginning to rise in flood, and Raleigh ordered a landing to be made, and sent parties out to explore the countries round. Never had he seen such a beautiful country, "with its abrupt hills and fertile smiling valleys of fair green grass, the path being of hard sand and easy to march on either for horse or foot, the deer crossing it ever and again, with little fear of man, the birds towards the evening singing on every tree in a thousand different tones and notes."

After collecting specimens of rocks, which showed signs of gold, and also some stones which looked like diamonds, Raleigh set out on the return journey. Daily thunderstorms and the violence of wind and wave alarmed them, but at last Trinidad was reached. The fleet of ships arrived in England at the end of the year, having been away, in all, nine months.

Raleigh wished to lead another expedition, but at the accession of James I in 1603 he got into trouble and was imprisoned. In 1617 he was released, to fit out and lead an expedition to Guiana in search of silver and gold. He was not able to fulfil the orders of the King that he should not get into conflict with the Spaniards. Consequently on his return he was executed, to pacify the Spanish King. To-day, Britain owns a large tract near the region Raleigh had examined, and signs are plentiful that his talk about gold and diamonds was not all grounded on fancy.

CHAPTER XVIII

FRENCH PIONEERS IN CANADA. VERRAZANO,
CARTIER AND CHAMPLAIN

Not many years after the voyages of the Cabots it became the regular practice of large numbers of seamen from the north-west of France, especially from Brittany, to visit the shores of Newfoundland in order to share in the profitable fisheries of that region. Thus the French were already interested in the New World when Verrazano, a native of Florence, offered to lead an expedition to the coast of North America, with a view to obtaining for France a share in the new lands. The King of France, Francis I, willingly accepted the offer, for it might be the means of enabling him to save at least a portion of the New World from his rivals, the Spaniards and Portuguese.

Verrazano left Dieppe in 1524 and reached North Carolina. He then coasted along to the north, passing Delaware Bay and the Hudson River, the mouth of which he examined. Further north still, he reached what are now called the New England states, and even went as far as Newfoundland. As a result of this voyage the land lying behind the coast they had visited received the name of New France. Thus England, Spain, Portugal, and France had all now some claim to the American continent. The remarkable fact is that in the case of each country the claim was based on the voyage of an Italian!

But the real hold which the French eventually secured on the New World was due mainly to the work of a native of Brittany, named Jacques Cartier. Cartier had visited Newfoundland, and believed in the existence of a passage somewhere between Labrador and that island. In 1534 he was given two ships and set out across the Atlantic.

He sailed along the east coast of Newfoundland, noticing the great rugged cliffs and many bays. One island attracted much attention by reason of the numerous birds which lived there. These birds, and the polar bears which used to swim off to the island to catch them, were a welcome source of fresh food to the seamen.

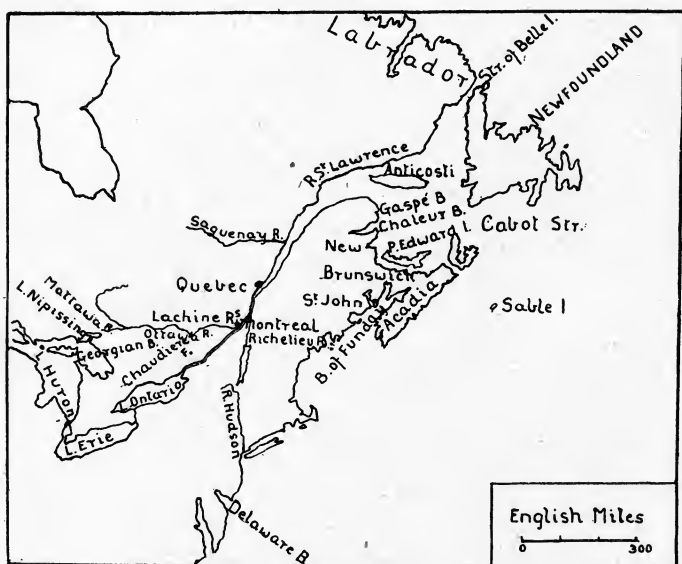
Through the Strait of Belle Isle and down the west coast of Newfoundland Cartier passed, reaching Prince Edward Island. The beauty of this country entranced him. There were forests remarkable for their pleasant odours as well as for their lovely tints. All kinds of edible berries grew in abundance. As it was summer, the climate was so warm that when Cartier reached a large bay on the coast of New Brunswick he called it Chaleur Bay, or Bay of Warmth. Bad weather prevented him from sailing into the St Lawrence, so after visiting Anticosti he sailed back through the Strait of Belle Isle and so to Europe. He had not realized the existence of a strait to the south of Newfoundland.

While on the coast of New Brunswick, in Gaspé Bay, Cartier had met some Indians who had come down the St Lawrence. They were not pleased when they saw him erect a cross, with a shield on which were the arms of France and an inscription. Yet they allowed him to take two young men back with him to France, to learn the language, so that they might act as interpreters on a later voyage.

In 1535 Cartier, after a long voyage, again reached the coast of Labrador with three ships. The total crew amounted to just over one hundred, besides the two Indians who accompanied them, and who soon began to recognize the scenery on the way into the Gulf of St Lawrence. They told Cartier of the great river which entered that Gulf, and which stretched far inland beyond what they called "Canada," that is to say Quebec.

Cartier had had some vague idea that the passage to China might be reached this way, and was disappointed to find that as the water was fresh, instead of salt, this was impossible.

For some time he cruised about the Gulf, noticing on the Labrador side what he called "sea-horses," by which he meant walruses. Then he sailed on up the river, passing the Saguenay, a tributary on the north bank, and



French Pioneers in Canada

finally reaching Quebec. Here he resolved to leave his ships for the winter, and then he started off with small boats to find the settlement at Hochelaga (near Montreal). The Indians at Quebec tried to deter him from going further, but he persisted.

Hochelaga proved an interesting settlement. There were about fifty houses, surrounded by a stockade. Several

families lived in each house, and the English were much interested, though rather disgusted, to watch the processes by which the food was prepared for eating. The little village was on the top of a hill, and to this hill Cartier gave the name of Mont Réal, or Royal Hill. The town of Montreal is not far from this site.

Returning to Quebec (then called Stadacona), the Frenchmen spent a miserable winter, mainly owing to the outbreak of the dread disease of scurvy. Many died, and although an Indian remedy was found, it was a much reduced body of men that returned to France, in the summer of 1536. They took several Indians back with them, and perhaps it was through them that the strait known as Cabot Strait, between Newfoundland and Cape Breton Island, was discovered and used then for the first time.

In 1541 Cartier went on his last expedition to the St Lawrence. He reached Quebec and there built a fort. But he failed in an attempt to take boats through the rapids above Montreal. These rapids were afterwards named La Chine Rapids, because it was believed a route to China lay beyond. The settlement at Quebec was soon given up, although other Frenchmen took Cartier's place when he returned to France in 1542. It was forty years before the attempt to build up a French colony in these regions was again made.

The chief credit for the successful beginning of French colonization in Canada is due to Champlain. As a young man he had voyaged to the West Indies and Mexico, and had suggested to the French King the advisability of cutting a canal through the isthmus of Panama. In 1603 he was sent, with other captains, to visit Canada. He reached Hochelaga, but the Lachine Rapids prevented him from going further up the river, just as they had prevented Cartier. Yet he learned much from the Indians

concerning the lakes and rivers of the St Lawrence region.

In 1604 he again went to the New World. He reached Acadia, or Nova Scotia, and after being nearly wrecked on Sable Island he entered the Bay of Fundy. An attempt was made to form a settlement at St John, New Brunswick, but the colonists were afterwards moved to the west of Nova Scotia, where the town of Annapolis was founded later. Meanwhile Champlain explored the lands to the south (Maine and Massachusetts).

In 1608 Champlain sailed direct to the St Lawrence. It was then that the foundation of Quebec took place. The site is on a rocky promontory, easy of defence, just where the river begins to narrow. The following year Champlain joined a war-party of Huron Indians, who were on their way to fight their enemies, the Iroquois, who lived to the south of the St Lawrence. On this journey Champlain ascended the Richelieu River and discovered the lake which has since borne his name. Champlain took a large share in defeating the Iroquois, mainly because he and his companions had firearms. This was the cause of a long period of hatred on the part of the Iroquois and their allies towards the French, and when in later years the English and French were at war in North America this fact was of great service to the English.

Champlain paid several visits to Canada during the next few years, but his principal work was carried out in 1613 and 1615. In the former year he went up the Ottawa River and saw the Chaudière Falls, near which the capital of Canada has grown up. It was too difficult to force a way through the dense forests any further, though Indians had told him of an "arm of the sea," probably Hudson Bay, which might be reached that way.

In 1615 Champlain again ascended the Ottawa, passed up its tributary, the Mattawa, crossed Lake Nipissing,

and then descended French River to Georgian Bay, on Lake Huron, "the first of the great American series of lakes to meet the eyes of a European." From here he accompanied Huron Indians to Lake Ontario, which he crossed. He was then wounded in an attack on the Iroquois, and next year returned to Quebec. "To him belongs the honour of opening the path of discovery in the northern interior of North America, where the bounds of knowledge were thenceforth slowly but steadily extended."

CHAPTER XIX

MUNGO PARK AND THE NIGER PROBLEM

Although the whole of the outline of the coast of Africa had been determined by the end of the fifteenth century, little was known about the interior of the continent. Native information was unreliable, and consequently all kinds of strange ideas were held as to such matters as the direction of the great rivers. For example, as late as 1760 it was believed that the Niger flowed to the West, and that the Senegal and the Gambia were two of its outlets.

In 1787 an Association for furthering the work of African exploration was founded in England. A traveller who was sent to trace the course of the Niger perished in Africa, and Mungo Park offered to take up the same task. He was a Scot who had studied medicine at Edinburgh and had already made a voyage to the East Indies.

He set sail in 1795 for the west coast of Africa, full of a determination to find out all he could about the country and the customs of its natives. He was under orders to reach the Niger and trace its course, finding its

source and mouth if possible, and visiting the great cities on its banks.

After a month's voyage he reached the Gambia. Park describes the deep and muddy river, with its mangrove swamps, in which dwelt the alligator and hippopotamus. For nearly a month he journeyed up the river and then landed on the north bank, paying a visit to Pisania. This was a British trading factory, to which were brought slaves, gold, and ivory. Here Park stayed some time, learning the Mandingo language, which was the most useful for that part of Africa. Unfortunately he fell ill of malaria in the rainy season, the great enemy of Europeans. It was now August, and Park found it a gloomy season, "when the rain falls in torrents; when suffocating heats oppress by day, and when the night is spent by the terrified traveller in listening to the croaking of frogs (of which the numbers are beyond imagination), the shrill cry of the jackal, and the deep howling of the hyaena; a dismal concert, interrupted only by the roar of such tremendous thunder as no person can form a conception of but those who have heard it."

When the dry season began, Park recovered, and set out from Pisania in December 1795. He took with him a negro named Johnson and a black boy named Demba. Six other natives who were journeying east joined him. He also had a horse and two asses, some provisions, with beads, amber, and tobacco to buy more. An umbrella, a compass, a sextant and a thermometer, with change of clothes, and some pistols, completed his outfit.

The first important place reached was Medina. Here he was well received by the King, but was warned by him not to proceed further because of the dangers of the journey. But Park was not to be deterred, and resolved to press forward. The King furnished him with a guide, and so he made his way to a place called Koojar, where

he witnessed a native wrestling-match, followed by a dance. The explorer was much amused by the great superstition of his native attendants, who were continually preparing charms to ensure a safe journey. "This was done by muttering a few sentences, and spitting upon a stone, which was thrown before us on the road. The same ceremony was repeated three times, after which the negroes proceeded with the greatest confidence; every one being firmly persuaded that the stone had carried with it everything that could induce superior powers to visit us with misfortune."

Towards the end of December the river Faleme, a tributary of the Senegal, was reached. On the other side of this stream was the capital of the native state through which Park was travelling. Park was taken to see the King, who looked on him with suspicion, as he could not understand a man travelling merely for curiosity. The gift of the umbrella and other presents pleased him, but caused him to express a desire for more. Park consequently had to hand over his coat, which had very attractive yellow buttons. The women of the royal household were very inquisitive and rude. They said that his skin had become white through his having been dipped in milk while young.

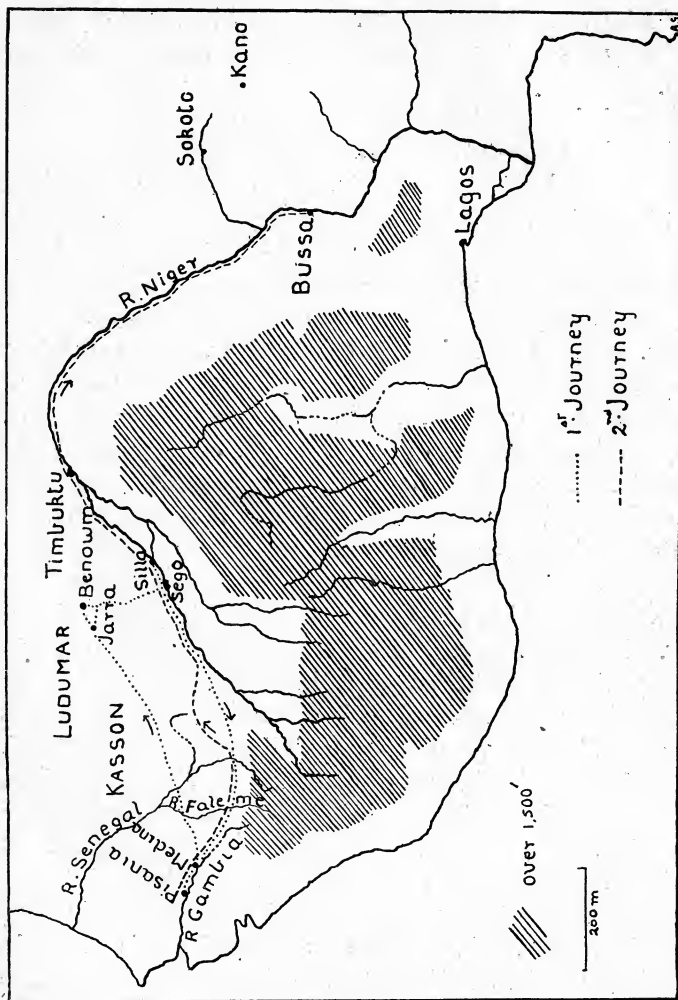
After leaving this place the travellers entered a region where their dangers increased rapidly. Envoys were sent from a king to demand tolls, and Park was compelled to give up half his belongings. On December 27th he reached the Senegal, "here a beautiful but shallow river, moving slowly over a bed of sand and gravel. The banks are high and covered with verdure; the country is open and cultivated." On the other side of the river, the state of Kasson was entered. Here the inhabitants lived in constant terror of the Moors. While Park was at one place the people were compelled by a Moorish king to say

eleven prayers "as a testimony of their renunciation of paganism."

One of Park's companions was a negro blacksmith, who had been absent from his home in Kasson for four years. Park gives a very touching account of the reunion of this man with his relatives. He was received with singing and dancing and every sign of affection. From this Park was convinced "that whatever difference there is between the Negro and European in the conformation of the nose and the colour of the skin, there is none in the genuine sympathies and characteristic feelings of our common nature."

On January 15th, 1796, Park entered the town of the King of Kasson. He was very friendly, but reminded Park of the great difficulties which lay ahead. War was on the point of breaking out between various states lying to the east, but the King promised to make enquiries as to the possibility of further progress. Hearing later that war had not yet begun, Park pressed on through the state of Kaarta, at the chief town of which he was taken to a large hut to await an interview with the King. "I had scarcely seated myself in this spacious apartment," he says, "when the mob entered; it was found impossible to keep them out, and I was surrounded by as many as the hut could contain. When the first party had seen me, and asked me a few questions, they retired to make room for another company; and in this manner the hut was filled and emptied thirteen different times."

Hearing that an enemy's army was coming, Park, who had been well treated by the King of Kaarta, left for the town of Jarra, which was in the Moorish kingdom of Ludumar, and "was of considerable extent; the houses built of clay and stone intermixed." The attendants of Park refused to go any further with him, as they were afraid of the Moors, and had already had to face too many



Travels of Mungo Park

dangers. Still Park was determined to press on, and sent to Ali, the King of Ludumar, for permission to do so. The King sent a slave to guide him, and he was also joined again by his faithful boy, Demba, who refused to desert him.

On his journey through Ludumar, Park was constantly molested by bands of Moors. Moreover he was troubled by a dreadful plague of locusts. Eventually he was seized and taken to Ali's camp at Benowm. It presented to the eye a great number of dirty looking tents, scattered without order over a large space of ground; and among the tents appeared large herds of camels, cattle, and goats. On his entry into the King's hut, Park had again to put up with the annoying curiosity of the natives, particularly the women, who "asked a thousand questions, inspected every part of my apparel, and searched my pockets. They even counted my toes and fingers, as if they doubted whether I was in truth a human being."

That night was spent by the unlucky prisoner on the ground outside the tent of the chief slave, but next day he was placed in a hut, which he had to share with a hog. Day after day, Park says with bitterness, he had to put up with a constant series of insults and torments from these Moors, whom he describes as "the rudest savages on earth." Almost all his remaining goods were seized. The King obtained his compass, and was much mystified at the behaviour of the needle in always pointing in one direction. He was so scared that he returned it. Park at length fell ill of a fever, worn out by disappointment and ill-treatment. Sandstorms and whirlwinds added to his discomfort. Even then he occupied his time in learning Arabic, and in gathering information as to the trade and habits of the countries round.

The approach of an army caused the camp to be struck, and Park was taken further north, where he was shown to

the Queen. She took much interest in him, and did much to improve his lot. The great trouble now was lack of water, for Park was well within the desert region. "Day and night the wells were crowded with cattle, lowing and fighting with each other to come at the troughs; excessive thirst made many of them furious; others, being too weak to contend for the water, endeavoured to quench their thirst by devouring the black mud from the gutter." Park was not allowed to drink at the wells, lest, being a Christian, he should contaminate the water.

At last he was allowed to go to Jarra with a body of troops which were bound there. On the way a great sandstorm was encountered. "During the night there was much lightning; and about daybreak a very heavy sand wind commenced, which continued with great violence until four in the afternoon. At times it was impossible to look up; and the cattle were so tormented by the particles lodging in their ears and eyes, that they ran about like mad creatures, and I was in continual danger of being trampled to death by them."

Soon after his arrival at Jarra, Park heard that owing to the approach of the enemy the town was to be abandoned. Worse still was the news that he was to be led back as a prisoner to the Moors. He resolved to escape, although he had little equipment or clothes. "And," he says, "I had not one single bead, nor any other article of value in my possession, to purchase victuals for myself, or corn for my horse." He set out, alone, on the morning of July 2nd. He was soon overtaken by three Moors, who said they had been sent to take him back. They proved to be robbers, however, and after relieving him of his coat they allowed him to proceed.

The way again led across a stretch of desert, and the sufferings of the traveller from thirst became intense. A storm arose, and he managed to collect rain-water in

his clothes. At other times, the croaking of frogs led him to a watering place, while the kindness of occasional natives prevented him from dying of hunger. At length Park reached Sego, and he saw the object of his mission, "the long sought majestic Niger, as broad as the Thames at Westminster, and flowing slowly to the *eastward*." He was much astonished by the prosperity of the country round Sego, "altogether a prospect of civilisation and magnificence which I had little expected to find in the bosom of Africa." But for a long time he could find no one to give him shelter, until at last a kind-hearted woman took pity on him and gave him food and a bed.

On the next day Park resolved to continue his journey down the Niger. As he went on, his difficulties increased. To the hostility of natives was added the danger of wild beasts and the discomfort of mosquitoes. His health again began to fail, and on reaching Silla, eighty miles beyond Sego, he resolved to return. The river was then in flood, and it was only with much difficulty that Park could make any progress. He had to avoid Sego this time, because the King, who had at first been friendly, began to oppose his progress, probably thinking he was a spy. Park was sometimes able to obtain food by writing charms for the natives. The charm was written on a board, and then the ink was washed off and swallowed, so as to give the full benefit of the charm.

At last he reached a place from which a caravan of slaves was to be sent to the coast in the dry season. While waiting for the start, Park occupied himself in writing down a summary of the information he had collected about the climate, productions, and people of the countries he had traversed.

The caravan started at the appointed time, and without further misadventure the Gambia was reached, and Park found himself at Pisanía. He then set out on a vessel

bound for the West Indies, whence he obtained a ship home. He reached England after an absence of two years and seven months.

In 1805 Park again set out for the Gambia. He took with him a number of artisans, and picked up about forty soldiers from the British garrison at Goree. This was an unwise step, because the men were not fit for the work that lay before them; moreover the start was made in a bad season. After covering about half the distance to the Niger the rain set in. Many of the party fell ill, and to add to the difficulties of the journey, some of the native attendants used to steal as much as they could.

At last the Niger came in sight. Park and one or two others decided to voyage down the river in canoes. A message was received from the King of Sego promising to give them a safe passage. At one town, where a market was being held, Park set up a stall, selling many articles for cowries, which would enable him to pay his way further down the river. In one day he obtained 25,000 cowries.

At the same place Park and his companions obtained two canoes, which they repaired and joined together to form what they called "His Majesty's schooner Joliba." It was forty feet long and six feet broad.

The voyage which followed is one of the most remarkable in history. It has been described as a greater venture than that of Columbus. Both were journeys into the unknown, but Columbus always had the chance of turning back, whereas there was nothing for Park to do but to go forward. With a crew of eight men, some of whom were sick and the others of little use, the voyage was begun. The river was dotted with dangerous rocks, and infested by hippopotamuses, and on the banks were often fanatical Moors. Yet Park was determined to discover the termination of the Niger or perish in the attempt.

It was the latter fate that actually befell him. No more news ever reached England from the great traveller, but in 1810 a native who was sent to search for news found the man who had acted as guide to Park on his last voyage. He told how they had sailed on, past Timbaktu and down the Niger until they reached the rapids at Bussa. Here they had been attacked by natives, and Park and the other whites had perished in the river.

The theory that the Niger and the Congo were one still remained, and in 1816 the Government sent out two expeditions, one to sail down the Niger, and the other to go up the Congo. Both these failed. In 1825 a traveller named Clapperton, who had previously crossed the Sahara and the Sudan to the Niger, set out from Lagos to the town of Bussa. From here he went to Kano and Sokoto. Unfortunately he died of fever at the latter place in 1827, but his companion, Lander, managed to return to the coast.

In 1830 Lander and his brother again set out from Lagos, and after three months reached Bussa. They at once made preparations to journey down the Niger in canoes. It was a beautiful journey for the most part. Past mountains and forests they went, until at length mangrove swamps began to appear, reeking with evil vapours. On the 24th of November, 1830, the sound of Atlantic rollers was heard, and soon the sea itself became visible. The secret of the Niger was solved at last!

CHAPTER XX

THE NILE PROBLEM. I. BRUCE AND THE BLUE NILE

Although the early Egyptians, who lived in the valley of the Lower Nile, were a people of much civilization, they do not appear to have had full knowledge of the course of the river upon which they so much depended. They probably knew the main stream as far as where Khartum now stands; perhaps they knew the whole of the Blue Nile. The difficulties in the way of journeys up the White Nile were great. Above the junction with the Bahr-el-Ghazal the river was choked with floating vegetation, or sadd. Moreover there was no trade to attract a commercial people in that direction. The interest of the Egyptians was mainly centred in the lands round the Eastern Mediterranean.

The Greeks, however, took great interest in the course of the Nile. The Greek historian, Herodotus, travelled some distance up the river, and collected information, though much was inaccurate, about the upper part of its course. Yet for two centuries before Christ there were vague ideas that the main Nile rose somewhere among great lakes far to the south, and near a group of snowy mountains, the Mountains of the Moon. Ptolemy, a Greek traveller and writer, drew a map of the Nile, about 150 A.D., which remained the chief authority for the course of that river until about the end of the fifteenth century, when more information came from various travellers, especially Arabs.

At the beginning of the seventeenth century certain Jesuits, of Portugal, had visited Abyssinia, and one of them had undoubtedly found the source of the Blue Nile in 1613. But his work was little known or talked about,

consequently the problem of the origin of the great river still remained to interest and baffle men. At last, near the end of the eighteenth century, came one who was to rediscover what the Jesuit had found so long before, and whose glowing descriptions and thrilling adventures were to fill the story of his work with romantic interest.

James Bruce was a native of Scotland, and in his younger days had shown great interest in foreign travel. He was for some time in business in Spain. When home, he often discussed matters of geographical interest with his friends. He was specially anxious to take part in the work of settling the problem of the source of the Nile, and at length a fortunate chance gave him the opportunity. In 1763 the great William Pitt, afterwards Earl of Chatham, appointed him Consul at the town of Algiers, in Northern Africa. Bruce at once accepted the post, because he knew it would help in the preparation for his Nile journey. While stationed at Algiers, he learned all he could of the language of the Arabs, and took many trips into the interior and along the coast. Finally, leaving Algiers, he narrowly escaped death from shipwreck. He sailed about the Eastern Mediterranean, visiting Crete, Asia Minor, and Syria. Keenly interested in the study of the ruined cities of the past, he found much to occupy him in these regions. Cairo was reached in July 1768, and here Bruce was able, owing to his knowledge of astronomy and medicine, to gain the patronage of the ruler, or Bey, of the town. The latter gave him letters of introduction to rulers of importance further up the Nile, and in December Bruce began his journey up the river.

"The vessel on which we embarked on the voyage up the Nile," he says, "was about one hundred feet from stem to stern, with two masts and two monstrous sails." For some distance, as the wind was contrary, the boat was drawn by rope. As they passed on, the travellers

noticed the ever-narrowing strip of fertile country, and the wonderful series of pyramids. The ruins of Memphis, Thebes, and Luxor were all of deep interest to Bruce, who describes them in detail in his Journal. At Luxor he was advised by a friendly native governor to leave the Nile and travel to the coast of the Red Sea, and then to journey by boat to Abyssinia. Before doing so he decided to go as far as Syene or Assouan, near which he visited the first of the series of great cataracts. "The river, not half a mile broad, is divided into a number of small channels, where the current tries to expand itself with great violence. Finding, in every part before it, opposition from the rocks of granite, and forced back by these, it meets the opposite currents. The chafing of the water against these huge obstacles; the meeting of the contrary currents, makes such a noise and disturbance that fills the mind with confusion."

Leaving Syene, Bruce returned down the river to Keneh, where he joined a caravan which was setting out for Kosseir, on the Red Sea, on February 17th, 1769. "Having mounted my servants, and taken charge of our own camels (for there was a confusion in our caravan not to be described, and our guards we knew were but a set of thieves), we advanced slowly into the desert. Our road lay through plains, without trees, shrubs, or herbs. There are not even the traces of any living creature, neither serpent nor lizard, antelope nor ostrich, the usual inhabitants of the most dreary deserts. There is no sort of water on the surface, brackish or sweet. Even the birds seem to avoid the place as pestilential." A body of Turks, on their way to Mecca, joined the caravan, because they heard it included an Englishman, to whom they could entrust their bags of money in safety. The last stages of the journey were through a hilly country rich in marble. "It has been a wonder," says Bruce, "among all travellers,

and with myself among the rest, where the Ancients procured that prodigious quantity of fine marble, with which all their buildings abound. That wonder now ceases, after having passed, in four days, more granite, porphyry, marble, and jasper, than could build Rome, Athens, Corinth, Syracuse, Memphis, Alexandria, and half a dozen such cities."

Kosseir proved to be "a small mud-walled village, built upon the shore, among hillocks of floating sand." Embarking on a boat, Bruce visited the peninsula of Sinai, in the north of the Red Sea, and then went south to Jidda, the port for Mecca. Here he was well received by some of his own countrymen, and after a month's rest he set out once again to the south. He sailed to the Straits of Bab-el-Mandeb, and then returning up the west side reached Massouah on September 19th, 1769.

The ruler of this town was at first inclined to make matters uncomfortable for Bruce, but hearing that the latter was a great Englishman, whose ill-treatment would be avenged by the British fleet, he resolved to receive him courteously. He sent his nephew to meet Bruce, and to hear what he had to say. Bruce presented the letters of introduction which he had obtained at Cairo, and from the Sharif of Mecca. "He then returned me the letters, and our coffee being done, I rose to take my leave, and was presently wet to the skin by deluges of orange-flower water, showered upon me by two of his attendants, from silver bottles."

The next day the ruler himself interviewed Bruce. He bullied the traveller, and tried to frighten him into giving up all he had, but Bruce remained bold and outspoken, and warned him that his countrymen would avenge his death. After six weeks of suspense, a message was received from the ruler of one of the provinces of Abyssinia, ordering the governor of Massouah to forward

“the physician” at once, as the King of Abyssinia, whose health was bad, desired his help. Even after starting on his inland journey, disguised as a Moor, the explorer was only saved from a final attempt on his life by the friendly warning of the nephew of the governor. “Thus finished a series of trouble and vexation, not to say danger, superior to anything I ever before had experienced.”

The way inland led over a country thickly covered with beautiful acacia blossoms and tamarinds. The traveller followed, with his native companions, the dry bed of a torrent, and although they saw lightning and heard thunder among the mountains, they were not alarmed, until “on a sudden, we heard a noise on the mountains above, louder than the loudest thunder. Our guides flew to the baggage, and removed it to the top of a green hill, which was no sooner done than we saw the river coming down in a stream about the height of a man, and the breadth of the whole bed it used to occupy. The water was thick tinged with red earth and raised in the form of a deep river, and swelled a little above its banks.” At last the ascent of Mt Taranta, the highest in Abyssinia, was begun. It was only with great difficulty that the heavy astronomical instruments could be moved. Soon after reaching the plateau region Bruce purchased a horse, which proved useful to him in many ways, as on more than one occasion he was able to save himself from danger at the hands of natives by his exhibition of skill as a rider.

The town of Adowa was next reached, and here Bruce received the very greatest courtesy from the governor. At this town was carried on a manufacture of coarse cotton cloth “which circulates instead of silver money.” The people of the district were able to gather in three harvests every year, of wheat, barley, and peas. On January 17th, 1770, Bruce left for Gondar, the capital. On the way some interesting ruins of ancient Abyssinia

were passed. The wayside was thick with hedges of honeysuckle, interspersed with vine, yet not everything was pleasant, for the travellers were often scared by great numbers of lions and hyaenas. Large black ants, an inch



The Nile Problem

long, caused them much inconvenience. At some places the natives tried to prevent further progress, but Bruce usually overcame them, by insisting that he was the King's guest, and must not be stopped on his journey;

on some occasions the gift of a piece of red cloth was a further incentive to more friendly treatment.

On February 15th Gondar was reached. The King was absent at the time, but the Queen desired Bruce to stay in the palace, and to try to cure the royal children, who were suffering from smallpox. After obtaining a promise of strict obedience to his directions, Bruce says he set all the servants to work. All the doors and windows were opened, the sufferers were fumigated with incense and myrrh, and washed with warm water and vinegar. Fortunately the invalids began to recover, and so the fame of the stranger grew. Many of the Abyssinians tried to lead him into arguments about religion, but Bruce refused to take part. On being taken to the King's presence, he was asked the usual questions "about Jerusalem and the Holy Places—where my country was? why I came so far?—whether the moon and the stars were the same in my country as theirs?" Owing to a quarrel with a drunken soldier, Bruce lost the favour of the King for a time, but recovered his goodwill by a display of skill with a rifle.

His long stay at Gondar enabled Bruce to make many valuable observations as to the country and its inhabitants. His Journal contains a most interesting account of the industries, government, religion, and social habits of the people. He also made careful notes of the climate. "The rains generally cease about the 8th of September; a sickly season then follows till they begin again about the 20th of October; they then continue pretty constant, but moderate in quantity, till the 8th of November. All epidemic diseases cease with the end of the rains, and it is then the armies begin to march."

Suddenly Bruce was appointed governor of a province in the south of the country, but before taking up his office he took part in a war against a native chief whose

province included the region round the source of the Blue Nile. As a reward for his own share in the war, Bruce asked for and received the "village of Geesh, and the sources where the Nile rises." On October 28th he set out from Gondar. On approaching his destination he was opposed by a chief who tried in every way to hinder him. He gave him a vicious horse as a present, but Bruce tamed it, and also gave a very striking exhibition of good horsemanship. This removed the last shred of opposition to the traveller's progress, and at length he resumed his journey to the desired spot. Passing through a region of uneven ground torn by torrents, he reached the banks of the Nile. The natives would not allow him to cross the river except on foot, with shoes off, such was their reverence for the stream.

"After coasting some little time along the side of the valley, we began to ascend a mountain on the right. The climate seemed here agreeably mild, the country covered with the most lively verdure, the mountains with beautiful trees and shrubs, loaded with extraordinary fruit and flowers." Arrived at the top of this mountain, the travellers saw, immediately below them, the Nile itself "now only a mere brook, that had scarcely water to turn a mill." Even at this stage the guide refused to go further unless he received the crimson sash which Bruce was wearing. The latter could scarce restrain his excitement as the goal drew nearer. At last the guide pointed out the last stage of the journey. "If you go the length of the fountains, pull off your shoes, as you did the other day, for these people are all Pagans; and they believe in nothing that you believe, but only in this river, to which they pray every day, as if it were God."

Bruce rushed forward to the spot indicated, "a little island of green sods," and soon stood over the principal

fountain. "It is easier to guess than to describe the situation of my mind at that moment," says the explorer, "standing in that spot which had baffled the genius, industry, and enquiry of both ancients and moderns for the course of near three thousand years.... Though a mere private Briton, I triumphed here, in my own mind, over kings and their armies," for these latter had never succeeded in the quest. Yet Bruce did not forget his debt to God, who had protected him in so many dangers, and he knew that just as many dangers remained to be faced on the way back.

A rapid return was made to Gondar. The town was in the midst of a civil war, and Bruce was compelled to help the King against his enemies. It was not until December 26th, 1771, one year after his return from the source of the Nile, that he left Gondar for the last time. After many adventures he reached Sennar, when once again he was delayed by the hostility of the natives. Eventually he was allowed to go, and after much suffering from thirst and from the choking sand in the desert, Syene was once again reached, the return to Cairo being accomplished in January 1773.

CHAPTER XXI

THE NILE PROBLEM. II. BURTON, SPEKE,
GRANT AND BAKER

Burton and Speke.

The journeys of Bruce had confirmed what was known of the Blue Nile. The problem of the White Nile, which was not explored far above Gondokoro, still remained. Just before 1850 certain missionaries heard reports from

natives concerning the existence of an enormous inland sea, somewhere near the Equator, in East Africa. Among those who became interested in this question was Lieutenant Richard Burton, who had already distinguished himself by entering Mecca, the sacred city of the Mahommedans, in disguise. Burton, who was stationed at Aden, resolved to try to reach the Nile by going through Somaliland. He was joined by Lieutenant Speke, a young officer of great ability as an explorer. But the journey through Somaliland was stopped by the natives. This was in 1854.

In 1856 Burton and Speke started from Zanzibar to test the news of the "Great Lake." They were well received by the Arabs at Unyamwezi (Kaze), but were told that the "Great Lake" of the missionaries was really three separate lakes. Still the explorers went on and discovered Lake Tanganyika. They found that no river ran out of the lake to the north, and that therefore it could not be connected with the Nile. Burton fell ill, and on returning to Kaze he agreed to stay there while Speke went north.

Although Speke himself was far from well, partly the result of a beetle entering his ear, he pushed through miles of difficult country and reached the southern end of a great lake. This was called Nyanza by the natives, the word meaning a great extent of water. Speke prefixed the title Victoria to the native name.

When first he saw the blue waters of the lake, a number of islands obstructed his view northwards. He was struck with admiration at the calm beauty of the scene. "But," he says, "the pleasure of the mere view vanished in the presence of those more intense emotions called up by the consideration of the commercial and geographical importance of the prospect before me. I no longer felt any doubt that the lake at my feet gave birth

to that interesting river, the source of which had been the subject of so much speculation, and the object of so many explorers."

But he had to rejoin Burton without testing his belief. Unfortunately the two quarrelled. Perhaps Burton was jealous of the success of Speke; certainly Speke was somewhat harsh with Burton. Both received a great reception on their return to England, but Speke at once prepared to lead another expedition to the Victoria Nyanza. This time he was joined by James Grant, a traveller of great personal charm.

The expedition left Zanzibar in October 1860. It included some native police from South Africa, Arabs, freed slaves, and negroes, besides mules and donkeys for transport, and goats for milk and meat. The South Africans, who fell ill of fever, soon had to be sent back. About 300 miles from the coast troubles began. Many natives deserted, enemies demanded taxes, and the floods rose. By the time Kaze was reached, the original party of 220 had been reduced by one-half, and all the mules and donkeys were dead.

The friendly Arabs at Kaze spoke of a high mountain, white with snow, to the west of the Victoria Nyanza, and also of another lake in the same direction. Before setting out for the north, Speke had to try to bring about peace between natives and Arabs, but without success. Consequently he could not engage many porters to carry his supplies. He started at last, and passed through a region where the extortions of the chief were enormous. Speke himself was now "a most miserable spectre in appearance," owing to a distressing cough from which he was suffering.

South-west of Victoria Nyanza they reached Karague, the land of a king who showed himself most friendly. Food was given freely, "for there are no taxes gathered

from strangers in the land of Karague." Walking through the hill country to the west of the lake, Speke saw little of the actual water. Soon he entered the famous kingdom of Uganda (1862), the first European to do so. This land was extremely beautiful, and seemed very prosperous. Houses were clean and neat, the climate was healthy, and bananas grew in plenty. The natives thought their king the mightiest in the world, and paid him great reverence, in spite of the fact that he was cruel enough to order the death of any in his court, often without real reason. Speke stayed here some time, and was entertained well by the capricious king.

One of the main objects of the journey had been to find out whether the Nile really did flow from the Victoria Nyanza, as Speke believed after his first journey. He reached the Nile at first a little below its outlet from the lake, and walked south again, past rapids, until he came in sight of the Ripon Falls, where the outlet is. "It was a sight," he writes, "that attracted one to it for hours, the roar of the waters, the thousands of passenger-fish leaping at the falls with all their might, the fishermen coming out in boats and taking post on all the rocks with rod and hook, hippopotami and crocodiles lying sleepily on the water, the ferry at work above the falls, and cattle driven down to drink at the margin of the lake."

Paddling down the Nile in canoes, the party were soon compelled by a hostile chief to leave the river. They went far to the west of the Nile, and so missed Lake Kioga. For two months they were delayed at the court of another hostile chief. This was specially annoying, because they heard of the existence of another lake (Albert Nyanza) not far to the west, yet were not able to visit it. At last they got away, and in February 1860 reached Gondokoro. Here they met Samuel Baker and

his wife, who had ascended the Nile with the idea of meeting Speke. From Gondokoro Speke and Grant descended the Nile to Cairo, and arrived in England in 1863.

Samuel Baker.

Baker had spent the early part of his manhood in very roving fashion. He had been in Mauritius, Ceylon, Eastern Europe, and Asia Minor. But the Nile Problem attracted him, and with his wife he reached Cairo in 1861. He first resolved to learn Arabic, and after going up the Nile to Berber, he ascended the Atbara. At first the river-bed was almost dry, but "in one night there was a mysterious change. The river had become a magnificent stream. I realised what had occurred: the rains were falling and the snows were melting in Abyssinia. These were the main sources of the Nile floods."

Baker reached Khartum by way of the Blue Nile, and then ascended the main Nile to Gondokoro, where, as has been seen, he met Speke. When Baker declared his intention of visiting the lake to the west of Victoria Nyanza, the Arab slave-traders at Gondokoro did all they could to prevent him from going. Baker managed to bribe the traders and then made his way south. But his porters gave trouble, and he had to abandon his ammunition, and other goods. Passing up the eastern branch of the Nile, Baker, who was accompanied throughout the journey by his wife, entered the native land of Unyoro. Although the Albert Nyanza was now only a fortnight's journey away, the King, Kamurasi, declared it was six months off, and delayed Baker for some time. At last, on being presented with a double-barrelled gun, he allowed the travellers to go.

Both Baker and his wife suffered from illness all the way to the Albert Nyanza, which was reached at its

south-east coast (1864). Baker found the lake shrouded in mist, and so much exaggerated its size. They sailed to the point where the Nile enters from the Victoria Nyanza, and then ascended the stream to the Murchison Falls, which they thus discovered. "The river drops in one leap one hundred and twenty feet into a deep basin, the edge of which literally swarms with crocodiles."

Baker had settled that the Nile received the waters of the Albert Nyanza, as Speke had found that it received the waters of the Victoria Nyanza. He now decided to return, although in reality the Nile Problem was even yet not finally decided. On the way back the travellers again fell into the hands of Kamurasi. He insisted on their helping him against some ivory-raiders. This Baker did by hoisting the British flag, and so putting the King under British protection. After much further trouble, Gondokoro was again reached, and the travellers went by Khartum and Suakim to England, where they landed in 1865.

CHAPTER XXII

DAVID LIVINGSTONE

The whole roll of the world's great explorers contains no greater name than that of Livingstone, both because of the great work of exploration he carried out and because of the wonderful example of Christian unselfishness and devotion to duty which he showed throughout the thirty years of his African travels.

Born in 1813, in Scotland, he was at first engaged in a cotton mill, where he earned enough to enable him to attend classes at Glasgow University. He studied

medicine, and was accepted as a medical missionary for service in China. But war broke out against that country, so in 1840 he set out for South Africa instead.

Landing at Algoa Bay, Livingstone travelled in an ox waggon for 700 miles to Kuruman. He stayed a considerable time among the natives, learning their language, and winning their respect by his skill as a doctor. He taught them how to irrigate the land by drawing water from the river by a canal, "though," he wrote, "we have only one spade, and this without a handle."

Moving north to Mabotsa, near the Transvaal border, he was wounded by a lion. Still further north, in a region governed by Sechele, a friendly chief, he stayed a long time with the natives, "building, gardening, cobbling, doctoring, tinkering, carpentering, waggon-mending, preaching, schooling, lecturing." He had trouble with the Boers, or Dutch farmers, who did not like his idea that blacks ought to be treated as human beings, just as the whites.

In 1849 Livingstone led a party of twenty into the Kalahari desert, to seek a lake which was said to exist to the north. For a month they wandered in a desolate country, often without water. Once they thought they saw the lake, but the view was a mirage, and the lake was really 300 miles off. At length they reached Lake Ngami, and then returned to Kuruman. In 1851 he journeyed north to the land of the Makololo, a people ruled by a chief named Sebituane. On the way they again suffered from want of water, but the friendly reception by the Makololo made up for all their troubles. While in this land Livingstone paid his first visit to the great Zambesi river, which was about 130 miles to the north-east.

After a visit to the Cape, in order to send his family

home, Livingstone returned to the Makololo. The great King Sebituane was dead, but his successor Sekeletu gave all possible help when the explorer declared his intention of attempting to reach the west coast at the Portuguese town of Loanda. Livingstone said that where the Portuguese slave-raiders had been he could go, and he was determined to try to open up a road for ordinary trading purposes.

In 1853 he left Sekeletu's town at Linyanti, accompanied by a body of the Makololo. He says, "our chief hopes for food were in our guns. I carried twenty pounds of beads, a few biscuits, a few pounds of tea and sugar, and about twenty pounds of coffee." Among other strange articles he took a magic lantern, which proved of great use in overawing the natives in certain districts.

The first stage of the journey, down the Chobe, and up the Zambesi, was fairly easy. But Livingstone began to suffer from fever, in fact he had no fewer than twenty-seven attacks before reaching Loanda. Passing into a region where the natives were hostile to Sekeletu, the travellers were well received by the niece of the head-king. She herself led them through a region of very dense forest. Still further on another chief, "in a snuff-brown coat," gave them guides, and received a present of "a shawl, a razor, some beads and buttons, and a powder-horn." He asked Livingstone to bring a coat from Loanda, as the one he had was old.

Lack of food now worried the party. Moreover the various chiefs demanded toll from them, so that their belongings were steadily reduced. As they drew nearer the coast, the natives became more hostile, and the forests were almost impassable. Even Livingstone's own men showed signs of weariness, but they could not bear to see him disappointed, and agreed to go on. At last the valley of the Kwango was reached and crossed, and

the descent to the coast began. The Makololo were astonished at the sight of the sea. "We were marching along with our father," they said, "believing that what the ancients had told us was true, that the World had no end; but all at once the World said to us 'I am finished, there is no more of me.'"

Livingstone was well received by the English commissioner at Loanda, but although ill, he refused all advice to return to England from there. He had promised to see the Makololo safely home, and he stuck to his word. Linyanti was again reached, about a year after the start from Loanda.

A few weeks later Livingstone started for the east coast. He was accompanied by Sekeletu as far as the Zambesi. A little later the party came in sight of the columns of vapour rising from the great falls of that mighty river. Soon the falls themselves were seen, and words fail to express the wonder and delight of the travellers at the magnificent picture. Livingstone ventured to name the falls after Queen Victoria. "From the end of the island where we first landed, though within a few yards of the falls, no one could see where the vast body of water went; it seemed to lose itself. Creeping with awe to the end of the island, I peered down into a large rent which had been made from bank to bank of the broad Zambesi, and saw that a stream 1800 yards broad leaped down 320 feet, and then became suddenly compressed into a space of 15 or 20 yards."

As they went down the Zambesi valley, tribes were met which threatened hostility, but the wonderful calm and courtesy of Livingstone won them over, and the party proceeded without danger, through a forest country, until Quilimane was reached, at the mouth of the river. Livingstone left the Makololo there, promising to return eventually and take them back to their own land.

At the end of 1857 Livingstone reached England, and at once found himself a hero. He was appointed British Consul in East Africa, and returned there with a considerable number of men in 1859. He took a steam pinnace, in sections, and on reaching the Zambesi this vessel was put together. A few months were spent in examining the lower part of the river, which was proved to be navigable as far as the Kebrabasa Rapids. Livingstone then began to explore the Shiré, a large northern tributary of the Zambesi. The pinnace was christened "Asthmatic," because of the snorts and groans which issued from her engines in the attempt to cover a few miles an hour. Three ascents of the Shiré were made. Lake Shirwa was discovered, and a beautiful land beyond was reached. The natives here were very industrious, "working in iron, cotton, clay, and making baskets and fish nets, and men and women turning out for field-labour." Before the end of the year, Lake Nyassa was reached.

The next six months were spent in conducting the Makololo to their homes again, and then Livingstone once more made his way to the mouth of the Zambesi. In 1861 he ascended the Shiré, taking a small boat which was carried when the Murchison Falls were reached, and on which he sailed into Lake Nyassa. The country round this lake was seen to be very fertile, but was spoiled owing to frequent slave raids. But Livingstone saw the promise of the land, and now an important British colony occupies the west shore of the lake.

The explorer was recalled to England by the Government, mainly because the Portuguese were complaining about him. In 1866 he again set out for Africa, being resolved to explore the land to the north-west of Nyassa, with a view to solving some of the problems with regard to the rivers of Central Africa, especially as to the Nile sources. Many of his men deserted, and food was scarce.

Still he struggled on, and, first touching the south of Tanganyika, reached Lake Moero. Eight months later he discovered Lake Bangweolo.

Turning south again, Livingstone tramped wearily on until he reached Tanganyika, and crossed it to Ujiji on the east side. He was dreadfully weak, owing to lack of suitable food, the dampness of the climate, and the exertions he had made in walking so many miles. Yet he set out again for the Lualaba, one of the head-streams of the Congo, and this he reached in March 1871. He thought this must be the Nile itself, though he felt doubts as to whether it might not prove to be the Congo. In this part of Africa he saw the evils of the slave trade at their worst, but was powerless to do anything except write home to the Government as to what he saw.

Returning to Ujiji, almost worn out, he was just entering the village when his native servant, Susi, called out, "An Englishman!" It was indeed an Englishman, Henry M. Stanley, who had been sent to look for Livingstone, and found him almost at the point of death, in the heart of Africa. Stanley's arrival, with fresh supplies, cheered the explorer, who recovered sufficiently to make with Stanley a trip on Tanganyika, during which they settled that no river ran from its northern end. Stanley could not persuade Livingstone to return home, and reluctantly left him. On reaching the coast he sent supplies and men to Livingstone, who set out again in August 1872.

After eight months' painful wanderings, the traveller reached Ilala, on the south side of Bangweolo. But he was physically exhausted, though his spirit remained eager to the last. On April 30th he passed away. His faithful followers carried his body for eight months all the way to the coast, whence it was taken to be buried in Westminster Abbey. But the work Livingstone did

in trying to lessen the sufferings of the unhappy natives lives on, and even to this day in many of the remote parts of the continent his name is held in reverence.

CHAPTER XXIII

STANLEY AND THE CONGO

In 1874, three years after his meeting with Livingstone in Central Africa, Henry Morton Stanley was sent out to Africa again by the owners of the *Daily Telegraph* and the *New York Herald*. He was asked to resume the work which Livingstone's death had left unfinished, that is to say he was to try to solve the chief problems still remaining as to the rivers and lakes of Central Africa. In particular he was to see if there was any connection between Lakes Victoria Nyanza and Tanganyika.

Stanley started out from England on this great journey with only three other white men. Two were brothers named Pococke; the other, named Barker, was the clerk of a London hotel. A boat, 40 feet long, was taken with the party. This boat was built in eight sections, so that it might be carried where it could not be used. At Zanzibar Stanley collected a troop of about 300 natives, some of whom had been with him on his last journey, but many of whom were unknown to him and proved to be unreliable.

The first part of the journey from the coast was troublesome. There were heavy rains and the supply of food became short. Many of the natives were ill. "Some suffered from dysentery, others from fever, asthma, chest diseases, and heart sickness, lungs were weak and rheumatism had its victims." During this

stage of the march Edward Pococke died. Striking north-west from Ugogo, towards the Victoria Nyanza, the party entered a well-watered country. But already twenty of their number had died, and eighty-nine had deserted. Moreover hostile natives murdered several, and then attacked the camp, killing twenty-two more.

Soon a magnificent open country was reached. "The country rolled, clear and open, like a treeless park, with scarcely a single shrub or tree. The grass was only an inch high. The herds of cattle and flocks of goats and sheep absolutely whitened the glorious park country." This is a region in East Africa, south of Lake Victoria, truly a land of plenty, where two yards of sheeting were worth an ox!

One day Frank Pococke, who had gone ahead to the brow of a hill, came back, saying, "I have seen the Lake, sir, and it is grand!" It was indeed an arm of the Victoria Nyanza, "which a dazzling sun transformed into silver, some 600 feet below us, at the distance of three miles. Well might the native porters sing aloud in their joy,

'Lift up your heads, O men, and gaze around:

Try if you can see its end.

See, it stretches moons away,

This great, sweet, fresh-water sea.'"

After paying off many of his native troop, Stanley set off on a journey round the Lake in the boat, the *Lady Alice*. After some difficulty a crew of ten had been induced to go on board with Stanley. The two whites were to await the return of the boat. Sailing down Speke Gulf, which Stanley now named in honour of its discoverer, the boat made its way into the Lake proper. All sorts of strange sights were seen. There were great herds of hippopotami, on approaching which the boat had to be anchored. Dreadful thunderstorms

not know from what land you have come, but I have a swift messenger with a canoe who will not stop until he gives all the news to the Kabaka. His mother dreamed a dream a few nights ago, and in her dream she saw a white man on this lake in a boat coming this way, and the next morning she told the Kabaka, and, lo! you have come!"

This King gave Stanley a splendid reception. It was only sixteen years since Speke's visit to the same country. "Hosts of questions were fired off at me about my health, my journey, and its aim, Zanzibar, Europe and its people, the seas and the heavens, sun, moon, and stars, angels and devils, doctors, priests, and craftsmen in general. I was subjected to a most searching examination, and in one hour and ten minutes it was declared unanimously that I had passed." Stanley was much impressed by the simple honest life of the King of Uganda and his people.

On the way up the Victoria Nyanza, back to the camp again, the travellers were treacherously attacked by natives on the bank. The latter held out their hands as if in friendship, and then removed the oars from the boat. Only by using boards from the boat itself as oars could the crew get the boat away. On arrival at the camp they heard that Barker had died during their absence. Stanley himself fell ill and had to remain inactive during several days.

The whole party then set out for Uganda. The King was engaged in warfare this time, but in the intervals of fighting he found time to discuss religion with Stanley. The King had already been urged by Arab slave-traders to become a Mahommedan, but he resolved to embrace the Christian faith, "because the white men refuse to make slaves, saying we are all sons of God." When Stanley announced his desire to proceed with his quest,

the King sent an army to accompany and protect him for the first part of the journey.

From Uganda Stanley travelled west, and saw part of what he afterwards learned to be the Albert Edward Nyanza. Thus, with his complete examination of the Victoria Nyanza, and the streams flowing into it, he had finished the first part of his work, the examination of the southern sources of the Nile. He then went to Ujiji, on Lake Tanganyika, where he had met Livingstone. "The surf is still as restless, and the sun as bright; the sky retains its glorious azure, and the palms all their beauty; but the grand old hero, whose presence once filled Ujiji with such absorbing interest for me, was gone!"

From Ujiji Stanley sailed round the whole of the Lake. He found that there was no stream connecting it with the Victoria Nyanza, as had been thought. Nor was there any regular stream issuing from it, though the water of the Lukuga, on the west side of the Lake, sometimes appeared to travel slowly away from it. The next step was to leave Tanganyika and cross the country lying to the west until the Lualaba was reached. Stanley reached this stream at its junction with the Luama, which is a tributary joining it on the eastern bank, just about 5° south latitude.

Truly the Lualaba, which Livingstone had discovered and partly examined, was a noble stream. "A secret rapture filled my soul as I gazed upon the majestic stream. The great mystery that for all these centuries Nature had kept hidden away from the world of science was waiting to be solved. For two hundred and twenty miles I had followed the sources of the Livingstone (Lualaba) to the confluence, and now before me lay the superb river itself! My task was to follow it to the Ocean."

Passing down the river to Nyangwe, the party met

there an Arab named Tippu-Tib, who had taken part in an earlier expedition in the Upper Congo region with an explorer named Cameron. From Tippu-Tib Stanley learned that the Congo had not yet been tracked to its mouth. He added that the river passed through dense forest. One of the Arab's followers declared that it went north, and then north, and then still north, through a land of dwarfs, "the queerest looking creatures alive, just a yard high, with long beards and large heads. And," he added, "there are monstrous large boa-constrictors, suspended by their tails to the branches, waiting for the passer-by, or for a stray antelope. The ants sting you like wasps. The leopards are so numerous that you cannot go far without seeing one. The gorillas run up to you and bite your fingers off one by one."

In spite of all these terrors, Stanley resolved to make the attempt to follow the river. Much was to be said for and against such a course. He and his one white companion, Frank Pococke, argued the matter, agreed to toss-up, and, when the result of the toss was against their going, decided to go! Tippu-Tib agreed to join them with a party of over 200 fighting men, as well as porters and slaves, and to accompany them for "sixty marches."

So they set out on the banks of the river through the dense tropical forest. "Down the boles and branches, creepers and vegetable cords, the moisture trickled and fell on us. Overhead the wide-spreading branches, in many interlaced strata, each branch heavy with broad thick leaves, absolutely shut out the daylight. We knew not whether it was a sunshiny day, or a dull, foggy, gloomy day; for we marched in a feeble solemn twilight, such as you may experience in temperate climes an hour after sunset. The path soon became a clayey paste, and at every step we splashed water over the legs of those in front, and on either side of us."

Tippu-Tib soon wanted to return, but with great difficulty Stanley managed to induce him to go a little further. The river had been out of sight for some time, but it was again reached. Stanley appealed to the men to go on with him. "The one God has written that this year the river shall be known throughout its length; we will take to the river, and keep to the river. To-day I shall launch my boat on that stream, and it shall never leave it until I finish my work. I swear it."

The burning words of the brave explorer had effect. Thirty-eight agreed to go with him "to the salt sea." The *Lady Alice* was once again placed on the water, and floated slowly down, some of the party walking on the bank. Hostile natives attacked them, and were with difficulty driven off. This happened again and again, but nothing turned Stanley from his purpose. Soon the first of the series of cataracts known as the Stanley Falls was reached. There were seven cataracts in all, and twenty-two days were spent in passing them, "during the nights and days of which we had been beset by the perverse cannibals who have made the islands amid the cataracts their fastnesses."

After more attacks by great fleets of native canoes, the *Lady Alice* passed into a region where the native people were not so hostile. Stanley had now realised that the "Livingstone" river was really the Congo, the lower course of which was already known. At last the river broadened out into a "pool." Sandy islands and long cliffs reminded them of England, and at Pococke's suggestion the expansion of the river was called Stanley Pool. Below this, rapids began again. The canoes had to be carried over the rocks in many places, but Pococke insisted in taking one canoe over the rapids, and he was drowned. So Stanley had no white companion left.

On reaching the great Isangila cataract, the fifth from

the sea, Stanley resolved to strike overland to the port of Boma. He had, though at great cost, accomplished his object, and solved the problem of the Congo. He had traced a line on what had been a blank map, and as a result of his journey the great Congo region was afterwards made into a centre of trade, from which Europe has obtained vast supplies of ivory, rubber, and oils.

CHAPTER XXIV

PIONEERS ON AUSTRALASIAN COASTS. TORRES, TASMAN, DAMPIER

One curious fact about the great Southern Continent is that its existence was believed in for centuries before it was actually discovered. In the Middle Ages it was thought that there must be a great land mass in the southern part of the world, in order to act as a kind of balance to the land in the northern part. On many of the maps of those days it was customary to draw an imaginary continent, which, after the discovery of South America, was sketched as a continuation of that continent stretching to the south of Africa and across the Southern Pacific (map p. 82). The voyage of Magellan proved that the mainland of South America terminated at the strait he discovered, but it was not till later that the non-existence of a "Terra Australis," or Southern Land, near to America, was proved.

It has been seen that the Portuguese and Spaniards, following different routes, had entered the Pacific. The Portuguese were mainly anxious to develop the trade in spices which the East Indian Islands afforded. The

Spaniards were perhaps more eager to discover new lands. Many Spanish sailors during the sixteenth century sailed from the west of South America into the Southern Pacific. As a result, many groups of islands were seen, and the Spaniards were ready to look on some of these as being in reality the coasts of the Southern Continent. Thus in 1595 the Marqueza Islands and the New Hebrides were discovered, though many of the crew who took part in this expedition perished. Among those who returned to Spain was de Quiros, who brought back stories of the Southern Continent, stories he had heard from the natives of various islands.

In 1605 de Quiros set out in search of Terra Australis, accompanied by Torres. To the largest island in the New Hebrides he gave the name "Australia of the Holy Ghost," the name Australia being now first used. De Quiros left Torres, in a second ship, and returned to Mexico. Torres sailed west and passed through the strait now bearing his name, between New Guinea and Australia. But the Spaniards kept this fact secret, and it was not revealed until 1796.

Meanwhile the Dutch had displaced the Portuguese in the Spice Islands and other of the East Indies. They then began to search for Terra Australis, which a Dutch writer in 1598 had declared to be "the most southern of all lands, separated from New Guinea by a narrow strait, and ascertained by some to be of so great an extent that if it were thoroughly explored it would be regarded as a fifth part of the World." Between 1606 and 1630 many Dutch ships touched at various parts of the northern, southern, and western coasts of the continent. The presence of Dutch names, such as Cape Leeuwin, Hartog Island, and Carpentaria, shows the general direction of the Dutch discoveries.

The greatest of the Dutch explorers in these regions

was Abel Tasman. In 1642 he was sent from Batavia, in Java, to try to reach the Southern Continent. He first sailed across the Indian Ocean to Mauritius, and then turned south-east. Consequently he missed Australia altogether, and reached land first at the coast of Tasmania. He named this Van Diemen's Land, in honour of the Governor of the East Indies. He did not discover that this new land was an island, and after seeing traces of human habitation, as well as the footprints of wild beasts, Tasman sailed off to the east. Thus he reached a new land, which was in fact the South Island of New Zealand, and which was reached at its northern end. Tasman Bay marks, in the modern maps, the place reached. But Tasman missed Cook Strait and sailed up the west coast of North Island to its furthest point, which he named Cape Maria Van Diemen. When his ships anchored, canoes full of natives came out, and these people were so hostile that Tasman had to withdraw. Though warlike, and evidently cannibals, they were clearly superior to natives in other parts of the Pacific.

From New Zealand, which received its name in honour of the Dutch province of Zealand (Sealand), Tasman's ships sailed north-east, and discovered a group of islands peopled by natives who showed themselves remarkably friendly. They appeared not to know the use of arms at all. Hence the islands received, later, the name of Friendly Islands. Here fresh water was procured, and then the return to Batavia was begun.

In 1644 Tasman again set out, to endeavour to trace more definitely the outlines of the Southern Continent. He did little, however, beyond exploring the northern coast, and quite failed to find his way through Torres Strait, to the east. Thus Dutch exploration of Australia practically came to an end. Their sailors had not discovered the east coast, which was much the best,

and they preferred to trade among the rich islands of the East Indies. Even the fact that New Guinea was an island, although Torres had proved it so, was not admitted by the Dutch. They still insisted that it was a continuation of the Australian Continent. One important fact, however, had been made plain by Tasman's voyages. There was no connection between Australia and the mythical great continent of southern polar seas.

The Dutch considered they had done sufficient to entitle them to give the name New Holland to what we now call Australia. But for a long time nothing further was done to lift the veil from the continent. The next step forward was the outcome of the voyages of a sea-rover, or buccaneer, named Dampier.

In the latter half of the seventeenth century many English sailors raided the coasts of Spanish America, especially on the western side. Dampier took part in several of these expeditions, but mention can only be made here of his work in discovery. His first important voyage in this connection brought him to the north-west coast of Australia in 1688. Dampier was not content to skirt the coasts of the lands he reached. He made it his business to find out what he could of the interior, and wrote descriptions of the products and people whenever he could. Of the inhabitants of the north of Australia he writes that they were "the miserablest people of the World." The land was bordered by low sandhills, behind which were woods. Water could only be obtained by digging wells.

Dampier left his ship shortly afterwards, being put ashore on an island off the coast of Asia. After many wanderings he reached England, and so interesting and promising were his accounts considered that in 1699 he was given a ship to go on another expedition. Passing round the Cape of Good Hope he reached Australia at

Shark's Bay, on the west coast. Steering north-eastwards, Dampier was disappointed to find the land barren and waterless, though the beauty of the flowers struck him very much. After journeying nearly a thousand miles along the north coast, he returned to Timor, in the East Indies, for supplies. He then sailed along the north of New Guinea, examining the coasts carefully. He then went to Batavia and thence returned to England. His remaining voyages are of no special interest in connection with Australian discovery.

For many years after these events the English took no part in voyages of discovery in the South Seas. There was no incentive to trade, because in 1711 the sole right of trading was granted to one company. Consequently other ships were only sent in time of war, when there was a chance of obtaining plunder. The next step forward towards revealing the secrets of the Australasian region was taken by the famous Captain Cook, whose daring deeds and wonderful perseverance must form the subject of another chapter.

CHAPTER XXV

CAPTAIN COOK

James Cook was born in Yorkshire in 1728. After serving for a short time as an apprentice to a village shopkeeper he went to the port of Whitby. He then entered the service of a firm of merchants owning several small collier vessels, and on one or other of these ships he learned the art of practical seamanship. But in 1755, on the threat of war with France, Cook decided to volunteer for services in the Navy, and he was an able

seaman on H.M.S. *Eagle* for the next two years. His promotion was rapid, because of the skill he showed in his work. He proved very useful in taking soundings of the depth of the St Lawrence during Wolfe's preparations for the siege of Quebec in 1759. Consequently at the age of thirty Cook was master of a King's ship, a wonderful tribute to his skill and energy. He continued to study the scientific side of his work, and was again employed to examine the coasts of islands in the Gulf of St Lawrence.

But yet greater tasks awaited the industrious sailor. Many had crossed the Pacific Ocean from Panama to the Philippines, but little was known of the greater part of that Ocean. In 1768 Cook was put in command of the *Endeavour*, which was to go to the South Seas on a voyage of scientific discovery. The immediate object was a journey to the island of Tahiti, in the Society Islands. Here it was intended to make certain astronomical observations, for which the place was specially suitable, but eventually the voyage produced results of far greater importance to the world.

Sailing from Plymouth, the *Endeavour* touched at Madeira and Rio de Janeiro, and passed through the Strait of La Maire, to the south of Cape Horn. After taking the required astronomical observations, Cook cruised among the Society Islands, from which he sailed south-west. In October 1769 he reached the east coast of New Zealand, between latitudes 38° and 39° . This was, of course, the side opposite to that reached by Tasman, who always thought New Zealand to be part of the Southern Continent. The bay Cook reached first he called Poverty Bay. The natives were hostile here, and the *Endeavour* passed south to Cape Turnagain. Again bearing north past Poverty Bay, the extreme north point of the North Island was reached, and the ship

sailed down the west coast of that island. Cook Strait was threaded and so it was proved that the north of New Zealand was definitely an island, and not part of a southern continent.

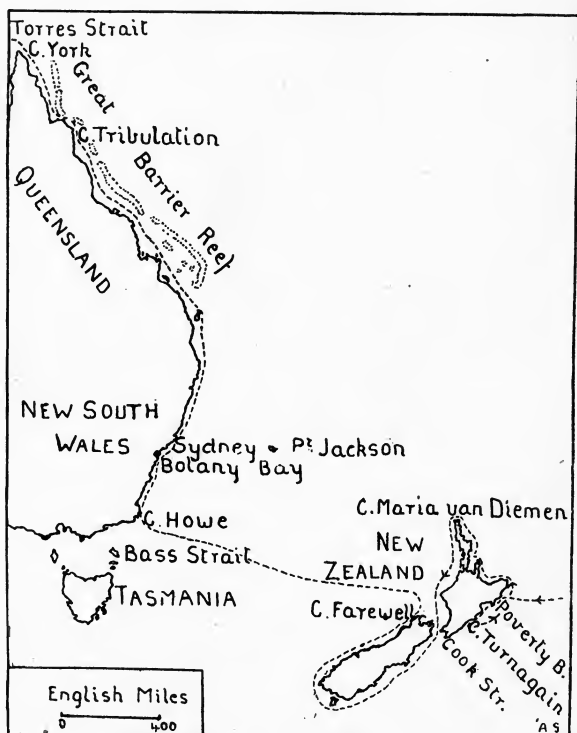
Cook's men wished to return, but the captain did not consider his work completed. He sailed on, round the whole of the South Island and up the west coast of North Island. On reaching Cape Farewell it was decided to return to England by way of the east coast of New Holland, or Australia, and thence by the East Indies.

Besides settling the outlines of New Zealand, much information had been gathered by Cook and his scientific companions concerning the nature of the land and its inhabitants. In the latter work much assistance had been given by a native interpreter from Tahiti, who had volunteered to accompany them from the Society Islands. Cook described New Zealand as being "well adapted for the plentiful production of all sorts of the fruits, plants, and corn of Europe," and so it has proved itself. The natives "are as large as the largest Europeans. Their complexion is brown, but little more than that of a Spaniard. Both sexes mark their bodies with a black stain. Their dress is formed of leaves split into strips, which are interwoven, and made into a kind of matting." Such is an extract from the earliest account of the Maoris, who, though cannibals, always showed themselves a remarkably intelligent people.

In April 1770 Cook sighted the east coast of Australia, near Cape Howe. The natives, though visible, would not enter into communication, and beyond the naming of various landmarks nothing was done until a harbour was reached to which, because of its richness in flowers and plants, the name of Botany Bay was given. Here a few natives were seen. They opposed the landing of the sailors as long as they could, and then disappeared into

the forest. The country around was very fertile and beautiful. Splendid trees were separated by stretches of rich grass, and in the branches were numbers of gaily-coloured parrots and other birds.

North of Botany Bay was seen a channel which led



Part of Cook's First Voyage

into a magnificent harbour, although it was not then examined. This was the splendid harbour of Port Jackson on the shores of which the great city of Sydney has been built. All the way northward was the same stretch of beautiful coastal plain, with mountains to the west,

sometimes near, sometimes far away. North of Moreton Bay the travellers found mangroves growing, a sign of the tropical regions they were now entering.

Animal, fish, and insect life was abundant. There were bustards as big as turkeys, green caterpillars with thick-set hairs that stung like nettles. There were vast numbers of butterflies, mosquitoes, and ants. But the coast of what is now Queensland was dangerous because of the shallows and reefs of coral. Careful soundings were taken, but about latitude 16° south the *Endeavour* suddenly struck on a reef. The sharp pinnacles of coral pierced the bottom of the boat, and all efforts to get her off seemed useless. The land itself was about twenty-four miles distant.

At last the wind and sea grew less violent, and with the rising tide the ship floated. But the pumps scarcely sufficed to keep the water down, and then a sail, covered with oakum and wool, was stretched over the outside of the leak. Thus they were able to make for land, which they reached where Cooktown now stands, and here they beached the ship. The point of the mainland opposite where they struck the reef was named Cape Tribulation.

During the time necessary for the repair of the ship, an examination of the surrounding land was made. A sort of cabbage was found, as well as bananas. All this fresh food was of great value in keeping up the health of the crew. A kangaroo was seen by Cook, who described it as being "of a light mouse colour, in shape and size much like a greyhound. It had a long tail also. I should have taken it for a wild dog if instead of running it had not leapt like a hare or a bird."

The natives in these parts were more friendly than those further south. They painted their bodies red and white, in streaks, and their hair was black and either

straight or curly. But they lost their temper on being refused food, and even set fire to the grass round the camp. These natives showed no interest in the usual gifts offered them by the English, but did no actual harm to their visitors.

All along the east coast, except for a short distance, the *Endeavour* had sailed inside the Great Barrier Reef. The water here was calm, though the hidden reefs of coral made it dangerous. At last Cape York was reached. Here the strait which had been seen by Torres was entered, and Cook had the satisfaction of proving that Australia was not a continuation of New Guinea, though the Spaniards had known the fact long before. To the whole of the land along which he had sailed Cook gave the name New South Wales, "a much larger country than any hitherto known, not deemed a continent, being larger than Europe." Landing on one of the islands off Cape York, Cook "displayed the English colours, and took possession of all the eastern coast of the country, by the name of New South Wales, for his sovereign, the King of Great Britain."

From Cape York Cook steered for the south of New Guinea, and thence to Java, where the ship was repaired. The way home was round the Cape of Good Hope, and England was reached in May 1771, after an absence of nearly three years. The work of Cook had been remarkable not only for the great geographical discoveries he made but also for the way he had looked after his crew. In earlier voyages crews had suffered greatly from scurvy. Cook studied the causes of the disease, and by insisting on careful feeding, and giving as much fresh food and lemon juice as possible, he managed to keep his crew almost free from illness of this sort.

The next voyage of Captain Cook cannot be described in detail here, although it was one of the most instructive

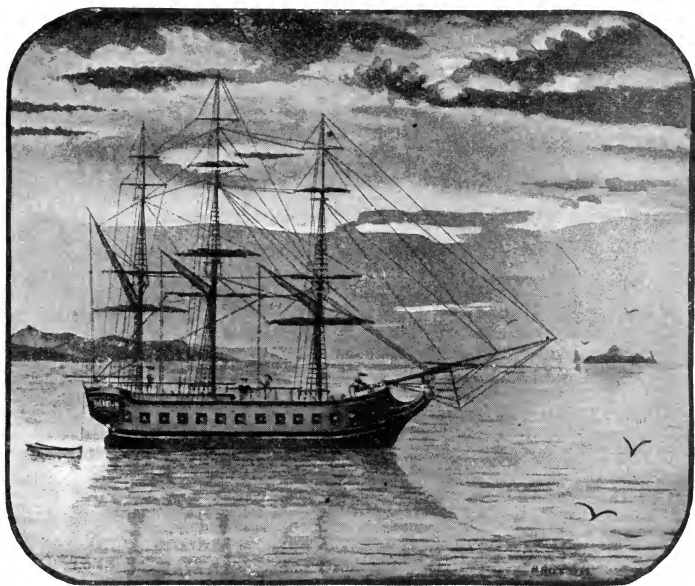
voyages ever made. He left England in 1772, in the *Resolution*, and with one other ship. He was told to go to the Cape and then to search to the south for any lands which might lie there. The Antarctic Circle was crossed for the first time, in 1773. Sailing east, New Zealand was visited, and then again the ships turned south, reaching as far as 70° south. Fog and floating ice made the voyage dangerous, but at last the edge of the solid ice which surrounds the Polar Continent was reached, in January 1774.

Many groups of islands, including New Caledonia, and Norfolk Island, were discovered on the way back to New Zealand, and from here the return journey was made round Cape Horn. It was proved that no continent existed anywhere in the Southern Hemisphere, at least between 50° and 60° south.

Cook's last voyage was undertaken to solve a different problem. He set sail in 1776 with orders to find out definitely, by an examination of the west coast of North America, whether or not a passage existed to the north of that continent. In the *Resolution*, and accompanied by the *Discovery*, Cook sailed first to Tahiti, where he left a number of domestic animals. From here he passed north-west to Hawaii, in the Sandwich group, and then sailed to the west coast of North America, the region which Drake had named New Albion. Cook reached the coast about 44½° north, and then sailed to what is known as Nootka Sound, on the west of Vancouver Island. The natives proved friendly, and after repairing his ships Cook put out to sea, reaching the coast again much further north, near Mount St Elias. Skirting the coast of Alaska, he entered the strait which had been discovered by Bering.

Although Cook continued on until the north coast of America turned east, there was clearly no chance of a

passage, the way being blocked by ice. Cook resolved to return to the Sandwich Islands to await a better opportunity. He reached the group at the end of 1778. On the island of Hawaii he was received with every mark of reverence, the people evidently looking upon him as a god whom they had long expected. Unfortunately Cook and his men offended them in various ways,



H.M.S. *Resolution*

especially in not respecting their religious scruples. The ships were allowed to sail, but had to put back, owing to a gale. This time the natives were angry and threatening. A dispute arose about a small cutter, belonging to the *Discovery*. The natives were accused of stealing the cutter. Cook landed, resolved to teach the native chief a lesson. While he was talking to the

chief his men began to fire on the natives. Cook was attacked by the natives, and though he showed the greatest bravery he was killed.

In this last voyage the great navigator had explored the unknown coast of North America for 3500 miles. He had proved that Asia and North America lie very close to one another at the northern extremity of the Pacific. The main object of the voyage had failed. Yet, as has so often been the case, the actual results were much more valuable than anything which could have followed the success of the object for which Cook had first set out. His work well entitles him to the honour of being called "the most distinguished navigator Great Britain has ever produced." He had planted the British flag on a land which was to be one of the most valuable parts of the Empire, and had brought the light of definite knowledge to bear on the map of the Pacific Ocean, which had been so long shrouded in darkness.

CHAPTER XXVI

BASS AND FLINDERS

The story of the exploration of the coasts of Australia contains no more fascinating chapter than that which describes the work of Bass and Flinders, in the years following the first British settlement in Australia. This settlement was first attempted at Botany Bay, but a more suitable place was found further north, on the shores of Port Jackson, and here, in 1788, began the building of the future town of Sydney.

Bass, who had entered the navy as a surgeon, found the life too uneventful for his liking. On the arrival of

his ship at Sydney he resolved to embark on a journey along the coast of New South Wales, the name by which the whole coast of the east of Australia was then known. "A little boat of eight feet long, called *Tom Thumb*, with a crew composed of ourselves and a boy, was the best equipment to be procured for the first outset." So writes Flinders, who arrived at Port Jackson as a midshipman on the same boat as that which brought Bass, and who joined the latter on his expedition.

Their first journeys took them up several of the rivers in the neighbourhood of Botany Bay, in 1796, and during these trips rich deposits of coal were found. In 1797 Bass set out in a small whale-boat, with food for six weeks, and a crew of eight. He entered and examined the many bays which lie between Port Jackson and Cape Howe. From the latter point he sailed west along a poor sandy coast. The boat was leaky and the journey dangerous, yet Bass proceeded until he reached Western Port. He had then been seven weeks from Port Jackson, and his provisions being almost spent it became necessary to return.

As he journeyed east, Bass noticed the strong westward drift of the current. "Whenever it shall be decided," he said, "that the opening between this and Van Diemen's Land is a strait, this rapidity of tides, and the long south-west swell that seems to be continually rolling in upon the coast to the westward, will then be accounted for." Thus Bass had really found that Van Diemen's Land, or Tasmania, was not an extension of Australia southwards, as was thought, but an island, separated from the mainland by a strait, which now bears his name.

Bass returned to Port Jackson after a voyage of eleven weeks. He had obtained further food by capturing fish, geese, and black swans, and, he quaintly adds, "by abstinence." He had been able to explore 300 miles of

coast, and so had added many details to Cook's account. In 1798 Flinders joined him in a full examination of the coasts of Tasmania, and the correctness of the views of Bass as to the existence of the strait was proved. At one point of the coast three natives were seen. The explorers landed and presented one of them with a black swan. "He seemed entirely ignorant of muskets, nor did anything excite his attention or desire except the swan and the red kerchiefs about our necks. He acceded to our proposition of going to his hut; but finding from his devious route and frequent stoppages that he sought to tire our patience, we left him delighted with the certain possession of his swan, and returned to the boat."

After his return with Bass, on the conclusion of this voyage, Flinders carried out exploration of the coast of Queensland. He then returned to England, and in 1801 was put in command of the *Investigator*, a Royal ship which was sent out for the purpose of carrying out a thorough examination of the coasts of Australia. Going out by way of the Cape of Good Hope, Flinders reached Australia close to Cape Leeuwin, at the south-western corner of the continent. The *Investigator* then proceeded eastward to King George's Sound, near which she was repaired, and wood and water were put on board. The natives here showed themselves friendly, but not anxious for communication. They were greatly interested when a party of red-coated marines landed and drilled on the shore. "When they saw these beautiful red-and-white men, with their bright muskets, drawn up in a line, they absolutely screamed with delight; nor were their wild gestures and vociferations to be silenced, but by commencing the exercise, to which they paid the most earnest and silent attention."

The coast of the Great Australian Bight was carefully followed. The land was marked by continuous high

cliffs and offered little hopes for future settlement. Its chief drawback was lack of water. On the eastern side of the Bight a cutter and its crew of eight were lost. They had been sent to obtain water, and had probably been upset by the strength of the current. Flinders named the place Cape Catastrophe.

Soon afterwards Spencer Gulf was reached. Flinders sailed up this opening, probably with the idea that it might be the termination of a great strait, joined to the Gulf of Carpentaria, and so dividing Australia into two parts. But as he sailed on, the Gulf became narrower, and at last the head was reached. There did not seem even to be a river flowing into the Gulf at this point. "At ten-o'clock our oars touched the mud at each side, and it was not possible to proceed further." While Flinders was examining the head of the Gulf one of his comrades ascended the highest point of the Flinders Range. This peak was named Mount Brown.

At the mouth of Spencer Gulf an island was visited. This was found to be inhabited by large numbers of kangaroos, many of which were shot. "And a delightful feast they afforded, after four months privation from almost any fresh provisions. Half a hundredweight of heads, fore-quarters, and tails were stewed down into soup for dinner on this and the succeeding days; and as much steaks given, moreover, to both officers and men, as they could consume by day and by night. In gratitude for so seasonable a supply, I named this southern land Kangaroo Island."

Passing along a coast rich in gum trees, the Gulf of St Vincent was reached. The country round it appeared to be generally superior to that on the borders of Spencer Gulf. Further east still, in Encounter Bay, a French ship was met. The two countries were not then on friendly terms, and Flinders feared an attack. The

French, however, were quite friendly, and, like him, proved to be on a journey of discovery to the west. In spite of the fact that Flinders had been the first to journey along that coast, it was found afterwards that the captain of the French ship proceeded to give French names to the landmarks along the coast which Flinders had already named. The French were always very anxious to claim Australia, and a few days after the first English settlers landed at Port Jackson a French expedition had arrived at Botany Bay for the same purpose.

After examining the magnificent harbour of Port Phillip, "Where," Flinders remarks, "a settlement will doubtless be made hereafter," and near which the great city of Melbourne grew in later days, Flinders proceeded through Bass Strait and so back to Port Jackson. "It may be said the officers and crew were, generally speaking, in better health than on the day we sailed from Spithead, and not in less good spirits." The people of Port Jackson said that the freshness of the colour of the crew reminded them strongly of England.

In July 1802 Flinders again set out northwards along the coast of New South Wales. He touched at various points on the coast, and gained much information about the natives and the nature of the country. He then tried to get his boat through the Great Barrier Reef, but found it almost impossible to do so. The "Reef" consists of a large number of reefs, with only black lumps, "like the heads of negroes" standing above water here and there. It was soon found that any attempt to navigate among them would only lead the ship into a hopeless labyrinth, but after a few days a passage to the open sea was found.

Flinders gives a description of a part of the reef on which he landed. "We had wheat-sheaves, mushrooms,

stag-horns, cabbage-leaves, and a variety of other forms glowing under the water with vivid tints of every shade betwixt green, purple, brown, and white, equalling in beauty and excelling in grandeur the most favourite pasture of the curious florist."

Passing through Torres Strait, and examining many islands on the way, Flinders entered the Gulf of Carpentaria. The coast of this was quite unknown, and Flinders proceeded to explore it. The land round the Gulf is flat and sandy, bordered with mangroves, and washed by a muddy and shallow sea. The sea was so shallow that the *Investigator* dare not approach near enough to examine the details of the coast. Flinders' idea of a great strait leading to the south of Australia had now to be abandoned.

Meanwhile the ship, which had always been leaky, was examined to see where the rotten timbers were. "The report consisted of a very short list of the few timbers which were still sound." Yet Flinders determined to go on with his voyage. Natives were seen in abundance, but they disappeared in extraordinary fashion, sometimes going into caves dug into the ground.

Altogether 105 days were spent along the coast of the Gulf of Carpentaria. Still further west, Cape Arnhem and Melville Bay were passed, and finally Arnhem Bay was reached. Here Flinders was astonished to meet with a fleet of Chinese junks, in which were Malays who had come from Asia to fish for trepang, a kind of sea-cucumber. But the condition of the *Investigator* was so bad that Flinders was compelled to return to Sydney.

Even now his adventures were not over. Starting for England, his vessel was wrecked on a reef, and he returned to Sydney in a small boat. He finally left for home in a schooner, which was compelled to put into the French island of Mauritius, for repairs. The Governor

kept Flinders as a prisoner for six years, and the great sailor eventually died in England on the day on which the account of his travels was published. It was in this book that the first suggestion was made to call the "Terra Australis" by the single name Australia

CHAPTER XXVII

THE PROBLEM OF THE AUSTRALIAN RIVERS. STURT'S VOYAGE DOWN THE MURRAY

For twenty-five years after the foundation of the first English settlement at Sydney little was done to prepare for extension towards the west. For one thing the free settlers were largely outnumbered by convicts who had been transported from England. But the chief drawback was the long line of the Blue Mountains. These are not of very great height, but they presented great difficulties owing to the steepness of their slopes and the impenetrable nature of the scrub and forests of their foot-hills and valleys.

But the need for further pastures was very great, and repeated attempts began to be made with the object of finding a gap in the forbidding mountains. At last, in 1813, a farmer named Blaxland made his way to the summit of the ridge, and saw fertile plains stretching between the hills on the other side. His route was followed by Evans in the same year. This explorer actually crossed the Blue Mountains, and was rewarded by seeing a country "handsomer" than anything he had ever seen before, "with gently-rising hills and dells well-watered." He passed down the Fish River until

it joined another stream. The combined stream he called the Macquarie.

In 1815 Evans discovered the head waters of the Lachlan, and his reports of the rich country now known as the Bathurst Plains filled the colonists of Sydney with enthusiasm. It was not long before they began to drive their flocks over the mountains by means of a wonderful road which had been constructed with great speed and skill.

The accounts of the Macquarie and Lachlan filled all minds with wonder. These rivers flowed westward, away from the sea. The question was, what became of them? Did they flow into some great inland sea, or did they cross the whole continent and find outlets far away to the north, or west? The attempt to solve this problem determined, for some time to come, the direction of Australian exploration.

In 1817 an expedition was sent under Oxley to examine the Lachlan. Unfortunately Oxley met with bad luck. The country he passed through proved remarkably poor, and as he himself was not of a very hopeful turn of mind he brought back most discouraging accounts. As he passed down the Lachlan it showed itself as a mere trickle. Sometimes it disappeared altogether in vast swamps, covered with yellow reeds. At other times it became a flood.

Oxley returned full of gloom as to the possibilities of this country. In 1818 he set out again, this time intending to follow the Macquarie. This river, too, appeared to end in marshes. One successful outcome of the trip, however, was the discovery of the magnificent Liverpool Plains, one of the most fertile regions in the continent. These plains were discovered as the party made its way back from the Macquarie to the coast.

During the next few years the Murrumbidgee, lying

to the south-west of Sydney, became known to the settlers, who were ever in search of new pasture for their flocks. In 1824 an expedition was undertaken by Hume, a settler of great practical skill as a bushman, and Hovell, a sailor. They did not get on well together, but they crossed the Murrumbidgee by means of a waggon, under which a tarpaulin was stretched, and reached the Murray at Albury. Then they made their way to the great range of the Australian Alps, across which they found a gap. They reached the coast at Port Phillip, near where Geelong now stands. Their accounts of the country they had passed through were very different from the accounts given by Oxley, and encouraged others to renew the efforts to solve the problems of the south-east of Australia.

Of all the stories in connection with this work the most fascinating is that of the great journey made by Sturt in 1829. In the previous year he had, in company with Hume, explored the Macquarie and reached the Darling, only to find that the water of the latter was salt, and he had correctly decided that this was due to the salt springs in the bed of the river. Sturt resolved to start again, proposing on this occasion to follow the Murrumbidgee, and to find whether all these rivers eventually joined some main stream far to the west.

Sturt had been a soldier, and had taken part in the battles of Wellington in Spain, in 1813. He was remarkable not only for his personal courage, but also for his gentleness and patience. One of the kindest-hearted of explorers, he set his men in Australia an example not only of endurance under the greatest difficulties, but also of forbearance in all dealings with the natives. This was a fact that had much to do with his successes as an explorer, as was seen in the case of Livingstone.

Sturt began his journey on November 3, 1829. His main party included seven others, three of whom were

convicts. An important item in the outfit consisted of a whale-boat, made in sections so that it might be carried easily and put together when required. It was also arranged that a vessel should be sent to the Gulf of St Vincent, to pick the party up if they should reach the coast in that neighbourhood. Three weeks after starting the Murrumbidgee was reached. At first it seemed as though the stream was going to show itself a splendid river, but after a few days it began to cross a swampy country, just as the Lachlan had done, and only with great difficulty could the course be followed. For this first part of the journey the party drove waggon, but after reaching the junction of the Lachlan and the Murrumbidgee the boat was put together and Sturt resolved to follow the actual stream. The extra members of the party were sent back some distance to await the return of the main party. This was on January 7th, 1830.

The boat was little more than twenty-five feet long, and a smaller punt, containing most of the food, was taken in tow. The latter boat was soon pierced by a tree-stump and sank, and two days were spent in rescuing the stores. Gradually the stream grew more rapid, and entered a belt of trees. Suddenly, on January 14th, the boat was driven past a junction "into a broad and noble river." The river was 120 yards wide, and from 12 to 20 feet deep. Surely, Sturt thought, this must be the great collecting river for all the streams that had been seen by various explorers in south-eastern Australia. It was, in fact, the Murray, and a glance at the map will show how correct Sturt was in his theory.

As they journeyed down the noble stream natives made their appearance at various points. They were nearly all hostile at first, but Sturt seems to have had a marvellous power of winning them over. One big native volunteered to run along the bank and help to

protect the little party. A little lower down his help proved useful, for a very numerous and warlike band of blacks threatened to destroy the travellers, and they were prevented by the native, who suddenly appeared and angrily commanded them to desist.

Shortly after this encounter the boat reached a point where another stream joined the Murray. This stream was the Darling. Still Sturt rowed on, although food was running short and the blacks were difficult to pacify. The weather became oppressive, and rowing was almost impossible. On February 3rd the Murray was seen to turn due south, and as the days passed signs of the nearness of the sea became very plentiful. On the 9th they reached a lake (Alexandrina), and Sturt felt that this was surely the end of the journey. But there was no navigable outlet to the sea, which soon appeared only two or three miles off. Then the water became shallow. It was impossible to get the boat to the sea, and full of bitter disappointment, for they knew a vessel awaited them not far to the west, the party turned back.

The journey back had to be undertaken against the stream, and with a stock of food, consisting only of a little flour, sugar and tea, which was rapidly disappearing. Yet the example of their leader encouraged the rest to go on. For weeks they struggled against great odds. Shallows and rapids appeared in turn. Sometimes the boat had to be pushed by main force, but no one complained. To make matters worse the natives were more hostile than ever. Yet Sturt refrained from causing the death of even one of them.

The only way the travellers could obtain food was by shooting swans which were occasionally seen. The men's hearts were cheered with the thought that they would soon reach the place where they had left the rest of the party with food supplies, on their outward journey.

Imagine their grief when they found the place deserted! They had only food left for a few days, and the boat could not hope to overtake the relief party in that time, owing to the bends in the river. Two of the travellers were sent on across country to find the camp, and before their return the last food had been consumed by Sturt and his companions. At this extreme hour the two returned "with knees and ankles dreadfully swollen, and with limbs so painful that on arriving in camp they sank to the ground, yet they met us smiling and rejoicing to relieve us so seasonably."

Sydney was reached after a total absence of six months, and after a boat journey of nearly 2000 miles. Never had the value of a good leader been more strikingly shown than on this expedition.

CHAPTER XXVIII

EYRE AND THE CROSSING OF AUSTRALIA

Eyre

As the years passed many flourishing settlements were founded on the Australian coasts. Two of the most important of these were Melbourne, which became the capital of the new state of Victoria, and Adelaide, which became the capital and centre of the settlement known as South Australia. The people in the settlements took an increasing interest in the exploration of the interior and more distant parts of the continent. Adelaide, in particular, sent forth expeditions to examine the prospects of opening up routes for stock-farmers to the north and west. Eyre took a leading part in this work.

Eyre had originally intended to be a soldier, but he was rejected on the ground of physical weakness. This seems very strange in view of the extraordinary energy he showed in his journeys of discovery. He went to Australia and spent some time in sheep-farming, during which he learned much about the habits and languages of the blacks. But he longed for the life of an explorer, hoping thereby to be the means of opening out new country for his fellow colonists. So in 1840 he set out on a journey to the heart of the continent. The journey was a failure. The way was barred by the salt marshes of Lake Torrens, and it seemed hopeless to expect to find a way across such a region. Eyre moved his party to the south-west of the peninsula now named after him. He then resolved to attempt the great task of skirting the whole of the coast round the Australian Bight, and making his way to Albany. This meant a journey of over a thousand miles along a barren and almost waterless coast, but, as in the case of all the Australian pioneers, Eyre never hesitated to risk the dangers. He hoped to find at least small waterholes at intervals, and on the existence of these his fate would depend entirely.

The first point of importance reached was Fowler's Bay, on the eastern side of the Bight. While the main party rested here, Eyre, with a native "boy," made repeated efforts to reach the head of the Bight. But Eyre realised that his party was too numerous to attempt such a journey. He returned to Fowler's Bay, and in spite of letters from Adelaide begging him to give up the attempt he eventually started with a white named Baxter, three natives, nine horses, a pony, and six sheep.

For days the party struggled on. Blinding storms of sand, and clouds of biting insects, made life almost intolerable. For the first 135 miles not a drop of water could be found. Then, when all seemed hopeless, a small

well was found amongst some sand-hills. This sort of thing happened again and again, when their supply of water was exhausted.

The usual method followed was that when a well was reached the whole party rested for some days while the horses, almost dead with fatigue and thirst, refreshed themselves for another step forward. Eyre himself would go ahead looking for further supplies, and then, if successful, he would send his boy Wylie back with the good news, and to bring the others forward. On one occasion the party had to retrace their steps for forty miles, in order to get back to a well, there being apparently no water ahead of them. To add to the difficulties the prickly scrub grew so thickly as to be almost impassable, and the poor horses could make no headway until most of the stores of guns, and finally provisions, were taken from their backs and buried.

So from day to day the weary travellers pushed on. Signs of wreckage on the coast only made their mental sufferings all the greater. Still Eyre was determined not to give up. Early one morning, when their last drop of water had been drunk, he took a sponge, and managed to collect with it a quart of dew from the blades of grass. But the plucky leader was soon to face even worse than thirst.

The two whites took in turn the duty of keeping watch at night. One night Eyre took the first watch, and while his companion, Baxter, was sleeping, he went out into the scrub to collect the horses, which had wandered away. Suddenly the black boy, Wylie, came running to him and begged him to return to the camp. There he saw a terrible sight. Baxter had been shot dead by the other two natives, who had plundered the camp and made off. Apart from his grief, Eyre was now in a forlorn condition. He could not even be sure of

the faithfulness of Wylie, who proved himself, however, thoroughly loyal. Only one gun of any use had been left by the natives, and even this was for the time being out of action owing to a bullet having stuck in the breech. Eyre tried to melt the bullet by holding the rifle in the fire. The rifle exploded, and the bullet just grazed his head. Surely no man ever had such providential escapes from death as did this courageous explorer!

Next day the treacherous rebels drew near to Eyre and Wylie, and tried to induce the latter to join them. But he refused, and when Eyre approached them they ran away. That night Eyre pressed on instead of camping, and so he got far ahead of them. When their stolen provisions were exhausted, the blacks would have to meet a worse death than that they dealt to Baxter.

The long journey began to draw nearer its conclusion. The Bight was fairly left behind, and then a strange change came over the weather. In that part of Australia the winter months are a time of heavy rains and great cold. The two wanderers were drenched through again and again, and they shivered in their scanty clothing. In June 1841 they suddenly saw a ship. It was a French ship, commanded by an Englishman. Eyre lit a fire on the cliff, and in answer to his frantic signals a boat put off and the two were taken on board. They were given a warm welcome, and, what was more important, plenty of good food.

After resting on the ship for a fortnight, Eyre again set off on the last 250 miles of his journey. The cold and rain were more trying than ever. Rivers began to appear, and through these they had to wade. Truly this was a contrast to their experiences on the first part of their journey. At last they came in sight of the little settlement at Albany, and entered it just over a year after they had left Adelaide.

Of course the journey did not open out a new and promising country and it might seem as though to that extent the labour had been useless. But many of the journeys across Australia appeared to have the same result. Yet information was really being obtained by such journeys. Sometimes the travellers were unfortunate in just missing tracts of land which were quite promising. Sometimes they saw districts under conditions of severe drought, when everything was parched and burnt. Yet later explorers often found the same regions changed by the magic touch of moisture into smiling tracts of verdure.

Leichardt.

There are many more stories of the endurance of Australian explorers, but only brief references to some of them may be made here.

In 1844 the German explorer, Leichardt, started from Brisbane to cross the north-east of the continent. After many narrow escapes from the hand of the blacks, who were more hostile here than in the south, he reached Port Essington, near Van Diemen's Gulf. He made two further expeditions, but they were unsuccessful, and on the last journey, on which he had set out with a view to crossing the continent from east to west, he and his party completely disappeared. Probably they were overtaken by a sudden flood, when travelling in the dry bed of some creek.

Kennedy.

Full of pathetic interest was the journey of Kennedy, who set out from Rockhampton in 1848 to explore the coast northwards to Cape York. Accompanied by ten white men, and a faithful black named Jacky Jacky, he pushed on through a region of drenching rains and heavy swamps. The hostile natives pressed round the

party and repeatedly hurled spears at them. The vegetation became almost impenetrable. At various points members of the party had to be left behind, overcome by the difficulties of the road and the lack of proper food. Finally only Kennedy and Jacky Jacky reached the northern end of the York Peninsula, where a boat was waiting to meet the travellers. But the natives slew Kennedy, and only the loyal Jacky Jacky reached a place of safety.

In 1861, after five previous attempts, Stuart succeeded in crossing the centre of the continent from Adelaide to Van Diemen's Gulf. While he was accomplishing his task another expedition, led by Richard Burke, was making its way from Melbourne to the Gulf of Carpentaria. This expedition was ill-managed, and after an extraordinary series of blunders the leaders, Burke, Wills, Grey, and King, reached the shores of the Gulf. On the way back all but King lost their lives.

CHAPTER XXIX

ALEXANDER MACKENZIE

In 1763 the English drove the French power from Canada, that is to say the region of the St Lawrence and the Great Lakes. A period followed during which the fur-traders of both nations gradually penetrated the regions lying to the north-west. But the chief share in this work was taken by British pioneers, and their work is of great interest and importance as having led to the opening up of routes through a region destined to be one of the most valuable parts of the British Empire.

Nearly one hundred years before the conquest of Canada the British Hudson Bay Company had founded forts, or trading posts, on the western shores of that inland sea. But little was done by the agents of the Company towards inland exploration before the middle of the eighteenth century. After that time many adventurous journeys were undertaken on behalf of the Company by pioneers such as Samuel Hearne, whose story makes fascinating reading. But it was a rival company, with its headquarters at Montreal, that produced a pioneer whose work stands out above even the work of Hearne and his colleagues. This pioneer, whose name has been connected with the river which he first placed on the map, was Alexander Mackenzie.

Born on one of the storm-girt islands of the west of Scotland, Mackenzie went to Canada at the age of sixteen. He entered the service of a fur-trading company at Montreal. In 1788, after helping in the founding of Fort Chipewyan, on Lake Athabasca, as a fur-collecting

centre, he resolved to try to sail down the Slave River, with a view to tracing its course to the sea if possible.

His party included a number of French Canadians, two Indian guides, with their wives, and a German. For some distance there was also a French Canadian trader, named Le Roux, who was on his way to a station on the Slave Lake. The whites started in June 1789, in a birch canoe, the Indians travelling in a smaller canoe. The first stage of the journey, down the Slave River, although not through an unknown region, was very trying. There were numerous rapids, and the canoes and supplies had to be carried from point to point. Such a means of passing rapids is called a portage. There was food to be obtained by shooting some of the many birds to be seen on the journey, Pemmican, the dried flesh of fish, formed a further, though perhaps unpleasant, source of supply. The bites of mosquitoes added to the general discomfort, and even when the Great Slave Lake was reached there was great danger of the frail canoes being crushed between the floating masses of ice.

After exploring some of the numerous arms of the lake, the outlet was at last discovered at the western extremity. A long journey then followed down the great river Mackenzie. To the west rose the magnificent snow-crowned heights of the Rocky Mountains. New tribes of Indians were seen, and their accounts of the dangers ahead did not add to the confidence of the travellers. Still the Indians were not hostile, though in many ways they were remarkably backward. For instance they knew nothing of pottery, but made utensils of bark. When they wished to boil water they did so by dropping red-hot stones into the bark pot containing the water. From these natives stories were heard of the Russian traders of the far west of Alaska. The

traders were said to have wings, though they never flew. Perhaps this was a reference to the sails of their boats. The Indians described also a great river to the west, this being the first mention of the Yukon.

In spite of frequent trouble with the chief Indian guide of the company, who continually expressed a desire to return, steady progress was made. The river was deep and the current strong. There were plenty of berries, fit for food, growing on the banks, and near the junction with the Bear River seams of coal were noticed. This coal was on fire, probably owing to the escaping gases, which had become ignited on contact with the air. Sometimes the banks were high, but nearer the sea the country became flat and swampy.

Mackenzie found plenty of vegetation growing, although he was so far north, but the trees were very tiny, and became very scarce as the delta was reached. At last the party reached the sea, but only to find it choked with masses of ice. The journey back to Fort Chipewyan took longer, because of the difficulty of paddling against the strong current. Three and a half months after the first start from the fort it was again reached, after a total canoe journey of over two thousand miles.

After a visit to England, Mackenzie returned to Canada to make preparations for another journey of discovery. He was determined to try to reach the Pacific Ocean by following the Peace River, the great feeder of the Athabasca, and by crossing the ranges of mountains to the west. The voyages of Captain Cook and Vancouver, who sailed round the island of his name in 1793, resulted in the collection of much information about the coast of British Columbia and the islands lying near to it. It was Mackenzie's task to reach these coasts and so link up the east of Canada with the Far West.

Leaving Fort Chipewyan in October 1792, he proceeded to cross Lake Athabasca, which he left at its western end. He journeyed up the Peace River, about the general direction of which he already had a fair idea, until he reached the foot-hills of the Rockies. The approach of winter now compelled the formation of a camp, for it would be impossible to make further progress during that severe season. The camp was pitched near the point where the Smoky River joins the Peace, on its southern bank. The scenery in this region was magnificent and there was any amount of big game.

Starting up the Peace River again in May 1793, and having Indian guides, the little party soon found their progress barred by rapids. It became necessary to lift the canoe out of the water and carry it along a path cut through the forest on the bank, until it could be once again floated. This process was frequently gone through.

When the point was reached where the two head-streams of the Upper Peace River meet it was decided to follow the southern stream, which was called the Parsnip, because of the abundance of vegetables of that kind growing near the stream. Soon the heart of the Rocky Mountains was reached, and Indians were met whom it needed all Mackenzie's tact to restrain from hostility against the stranger whites. Carrying their goods and canoe with them, the party made slow progress over the watershed, passing great mountains, sometimes bare and sometimes covered with magnificent forests of spruce, pines, poplars, and other trees. The activities of the beavers in this region attracted the attention of Mackenzie.

At last a stream was reached which flowed westward. Mackenzie believed this might lead to the Columbia River, which flows into the Pacific. The canoe was launched again, but the force of the stream was so great that it was driven from side to side, and many holes were made

in it. The travellers were compelled to wade waist deep in the water, holding the canoe, but eventually it was upset and many of the stores were lost. Mackenzie again had great difficulty in inducing the rest to proceed, but they became more cheerful when, after repairing the canoe, they reached a more navigable stream. This was the Fraser River, and on its broad and steady current they were borne rapidly westwards, although even now rapids bothered them at intervals.

Hearing from Indians that the Fraser River, after its great southward bend, was not very navigable, and that a better way to the sea would be found by following a right-bank tributary further to the north, Mackenzie turned the canoe round and followed this tributary as far as possible to the west. Then the canoe was carefully placed in a sheltered position, and the journey across another watershed, or mountain "divide," was begun. This was a weary task. The weather was alternately very hot and bitterly cold. There were dreadful thunderstorms and showers of enormous hailstones. Moreover the Indian guides continued to give trouble.

Still Mackenzie persevered, and soon a river leading to the sea was reached. Following the bank of the stream, the travellers reached an Indian village where they were received with great hospitality. They were given shelter and a large amount of fresh salmon, which they found everywhere plentiful on that coast. As they approached the latter they found the Indians more hostile, partly because Vancouver had been there just before and had fired on some of them.

When he reached the coast and had spent some time in examining it, Mackenzie decided to return. Before doing so, however, he made an inscription in clay letters on a rock, in the following words: "Alexander Mackenzie, from Canada, by land, the twenty-second of July, one

thousand seven hundred and ninety three." The return journey, although very tiring, especially among the precipitous mountains, was carried out more quickly than the outward journey. The canoe was found where they had left it. The Fraser was ascended, the Rockies crossed, and a rapid journey down the Peace River brought them back to Fort Chipewyan on August 24th, 1793.

Thus was the continent of North America first crossed, by a white man, from the Atlantic to the Pacific.

CHAPTER XXX

SIR JOHN FRANKLIN

With the beginning of the nineteenth century came a new interest in the problems of the Arctic Seas, especially in the question of the North-west Passage, towards the discovery of which little had been done since the days of Hudson and Baffin. In 1818 an expedition, in which John Franklin took part, was sent to Spitsbergen, with instructions to make an effort to push on from there as far as the North Pole, if possible. As a matter of fact the seas north of Spitsbergen were found completely frozen, and as far as the object of the journey was concerned there was no success.

But in one direction the voyage was useful. It enabled Franklin to learn a great deal about the conditions of Arctic exploration, and this was of great assistance to him in his later work. Franklin had been an officer in the Navy since his boyhood. He served in the naval wars following the French Revolution, and also accompanied Flinders on his great voyage in the

Investigator round the coasts of Australia. On this voyage he learned much of what may be called the scientific side of seamanship. He became skilled in the art of surveying seas and coasts, and in the power of observing natural conditions to the best advantage.

While the expedition to Spitsbergen was going on, another voyage, under Ross and Parry, was being made in search of the Passage. These men reached Smith Sound, to the north of Baffin Bay, and on the return journey saw the entrance to Lancaster Sound. In the following year, 1819, Parry was sent again to examine the various sounds leading from Baffin Bay. He was then to endeavour to reach the Bering Strait, and so pass to the Pacific. The story of this voyage is an interesting one, but only its result may be noticed here. Parry passed through Lancaster Sound and reached Melville Island, but ice prevented further progress.

In 1821 both Franklin and Parry were sent in quest of the mysterious Passage. Parry passed through Hudson's Strait and made his way through the narrow channel between Melville Peninsula and Baffin Land. Two winters were passed among the Eskimos, who were very friendly and gave much help. The expedition arrived back in England in 1823.

Meanwhile Franklin had orders to endeavour to reach the Arctic coast of North America by land, travelling from Hudson's Bay. Hitherto the Arctic coast had only been reached at two points. Mackenzie, as has already been described, had reached the mouth of his river in 1789, while Hearn had reached the mouth of the Coppermine River as far back as 1771. Franklin was to reach the mouth of the same river and then to examine the coast as far as he could to the east, perhaps meeting Parry, who was then moving west from the north of Hudson's Bay.

Franklin was accompanied by Dr Richardson, a seaman named Hepburn, and two midshipmen named Back and Hood. The party sailed from England in May 1819, and reached York Factory, on the west coast of Hudson's Bay, at the end of August. Here a boat was secured, about forty feet in length, made as light as possible, because it would be necessary to carry it over considerable distances between streams or past rapids. From York Factory a toilsome journey of 700 miles brought the party to Cumberland House, a trading station a little north-west of Lake Winnipeg, on the Saskatchewan River.

Richardson and Hood were left at Cumberland House, while the rest pushed on, in mid-winter, to Fort Chipewyan on Lake Athabasca. The cold was intense. For instance, it is said that the tea froze in the pots before it could be drunk. In the spring the others came up and the whole party passed down the Slave River to Fort Providence, north of the Great Slave Lake. This part of the journey was rendered difficult by rapids, and by the usual hot-weather plague of insects. At this point two other Europeans joined, as well as more than thirty half-breeds.

Proceeding in canoes through a country intersected by many rivers and lakes, between many of which the canoes had to be carried, a point was reached near the head of the Coppermine River. Here it was resolved to winter, and a little group of buildings was erected. To this the name Fort Enterprise was given. At first food was abundant, but as the winter proceeded there was great scarcity. With great bravery Back, the midshipman, set out by himself for Fort Chipewyan for supplies. He travelled on snow-shoes altogether for a distance of over 1000 miles, with little protection against the bitter cold, and sometimes for days without food. He returned with the supplies in four months.

In June 1821 a start was again made. Passing down the Coppermine through a region rich in reindeer and other game, the Arctic Ocean was reached. Then began a wonderful journey in light canoes along the rocky and dangerous coast to the east. There were masses of moving ice which nearly crushed the canoes. Every little turn of the coast was examined as far as $110\frac{1}{2}^{\circ}$ west, when a return was decided on, owing to shortage of food. This point was named Point Turnagain. Already over 550 miles had been covered since leaving the mouth of the river

Franklin resolved to take a shorter cut back to Fort Enterprise. He left the coast at Arctic Sound and passed up Hood River. Food became scarcer, and the difficulty of carrying the supplies led to the abandonment of many things. Even the two canoes were made smaller. Violent winds arose, and at last all food came to an end. The party had to live on lichens and an occasional stray animal or bird; even shoe-leather was eaten. Naturally everybody became weak and ill. When the party reached Fort Enterprise, where they expected to find supplies which Indians had promised to place there, they found nothing except an old deerskin and some bones, which, with lichens, served as food.

To add to their sufferings, Richardson and Hepburn, who had been left some distance behind with the weaker members, arrived with news that Hood had been murdered by a half-breed who had gone mad. Further deaths followed, and then Indians arrived with supplies. Mr Back had gone ahead and procured them the help of these people. Slowly the return was accomplished, and after a total journey of over 5000 miles, during which they had endured dreadful sufferings, York Factory was reached.

Even his sufferings on this occasion did not deter

Franklin from setting out for the Arctic coast again in 1828. This time, accompanied by Richardson and Back, the party went first to the Great Bear Lake, where winter quarters were built. Next year the Mackenzie was navigated to its mouth, and Franklin sailed along the coast westwards, while Richardson led a party towards the Coppermine River. The sea was navigable at intervals, and altogether about 1000 miles of coast were explored by the two parties. Franklin reached 150° west, while a ship sent by the Government to meet him had passed through the Bering Strait and reached almost to 160° west.

Franklin, together with Parry and Ross, whose work cannot be described here, had filled in many of the details in the map of the Polar seas, north of America. Still the Passage had not been finally accomplished, and in 1845 Franklin, although nearly sixty years of age, requested the command of a new expedition. In the interval he had been Governor of Tasmania, and had assisted Ross in preparing for his journey into the Antarctic, a journey which led to the discovery of the "ice-barrier" of the Antarctic Continent. The two ships which Ross took were used on Franklin's new expedition. They were the *Erebus*, and the *Terror*.

Franklin was to proceed by Lancaster Sound, and then to pass south and west towards Bering Strait. Practically the whole route was known except a strip from the west of Lancaster Sound to the south. A straight course was steered for Baffin Bay, and at some islands near Disco, on the west coast of Greenland, the final preparations were made. Supplies were taken for three years, and the voyage thence was begun in a spirit of complete harmony and faith in the gallant commander, as one who saw them depart testifies. They were again seen by the captain of a whaler, fast in the ice further

north, some time later. After that, nothing was ever heard of them, except indirectly.

There is no sadder story in history than the tragedy of this expedition. When nothing had been heard of them for nearly three years, numbers of search ships were sent. The story of those efforts cannot be given in detail here. Gradually little items of information were picked up, and remains of the fittings of the vessels were found. Eskimos spoke of the crews having left their ships in the ice, and of their dying one by one in the snow. It is clear that the two ships under Franklin passed through Lancaster Sound, crossed Barrow Strait, and entered Franklin Strait, between Prince of Wales Land and Boothia Felix. Here the two ships were frozen in for two winters. Day after day passed. Provisions grew low, and yet even the summer sun brought no relief.

Still the crews were not idle. In 1848 a party set out to explore the coast of King William's Land. They reached the south, and so found a strait which had already been reached from the north coast of America by other explorers. So they had really solved the problem of the North-west Passage, for this was the last link in the series of channels through which the Passage led. But soon after their return to the *Erebus* Franklin died. He died in the midst of the ice which had resisted him so long, and surrounded by his faithful followers, but with the news of victory fresh in his ears. So a brief note left behind tells.

After a third winter spent in the ships, the survivors abandoned them and set off southwards on foot along the western shore of King William's Land for the mainland. They took two boats with them, and these, a few skeletons, and numberless remains of clothing and other articles, were found by McClintock in 1859 along their

track. Such was the pathetic end of one of the most promising expeditions that ever left the British Isles.

CHAPTER XXXI

THE NORTH POLE

The attempts made since the sixteenth century to discover routes leading from the Atlantic to the Pacific round the north of America and Eurasia led to increased interest in Arctic exploration for its own sake. It has already been seen how explorers like Franklin and Parry spent years in Arctic seas, during which they added slowly to the details of the maps of those regions. Mention has also been made of attempts made to reach the North Pole itself.

The past half-century has brought about a large number of expeditions having as their object the "conquest of the Pole." The complete story of their attempts, though it cannot be given here, would show a wonderful record of determination, pluck, and perseverance. No one nation may claim to have achieved success unaided by others, for in polar exploration, as in all other such work, individuals have built upon the work of their predecessors, learning from their failures, and adopting methods which have met with any degree of success in those attempts.

It may cause wonder in some minds as to why the pursuit of the Pole should be thought worth the expense and the loss of life which has resulted. Apart from the "glory of achievement," which will always be an incentive as long as the human race lasts, there are many facts of science which can only be properly explained by an

examination of the polar regions. Such questions as the circulation of winds and ocean currents, to take two points only, are becoming more easy to understand as successive expeditions bring back the results of their enquiries in the Arctic and Antarctic regions.

Of the great number of expeditions which have set out within recent years for the Frozen North, and which have met with varying degrees of success, two only may be noticed here. One expedition, that of Dr Nansen, is noteworthy for the careful thought which led to the drawing up of the plan followed. The other expedition, that of Admiral Peary, will ever live in History as the one which finally succeeded in attaining the actual Pole.

Dr Nansen, a native of Norway, had devoted most of his life to the study of the Arctic regions. One of his most famous exploits was the crossing of Greenland from east to west in 1888. This was a wonderful piece of work, because not only is the east coast very difficult to approach, owing to the ice-formations which cling to it, but the ice-covered plateau of the interior rises swiftly to a height of several thousand feet.

Dr Nansen devoted the next few years to a careful study of the winds and currents of the Arctic seas. As a result of this he formed a daring plan. He had come to the conclusion that there was a steady drift of the ice in the Arctic Sea, setting from the north of the Bering Strait, crossing the polar region, and passing away again by the coasts of Greenland and Spitsbergen into the Atlantic. Consequently, he argued, if a ship could be taken into the ice-drift, it would be carried by the gradual movement of the drift across the polar region, perhaps near the Pole, and so into the Atlantic. He resolved to put this theory to a practical test. He had a special vessel built, named the *Fram*. Since the vessel would probably be frozen into the ice for two or three years,

it was specially constructed in such a way that when the ice should press against its sides it would be lifted, instead of crushed, by the pressure, and so would rest on the ice.

Setting off from Norway in June 1893, the expedition, which consisted of thirteen men, rounded the north of Scandinavia and reached Novaya Zemlya. Here a careful selection of Siberian dogs was taken on board, for it was thought that sledge-journeys might be useful, and perhaps necessary, at certain stages of the route. The *Fram* proceeded through the Kara Sea and past Cape Chelyuskin, the northernmost point of Eurasia. Soon the bow was turned to the north, and about the end of October the ice had closed round the ship. The vessel behaved exactly as had been foreseen. The pressure of the ice raised it on to the surface, and slowly it drifted towards the polar regions. Great heaps of ice were piled up against the sides of the *Fram*, and it appeared again and again as if she would be ground to powder, but she withstood all.

On the splendid ship drifted, until, in January 1895, when she had been frozen in the ice for fifteen months, and when latitude 83° had been reached, it was clear that her course would carry her beyond the immediate region of the Pole. Then came the most wonderful event in this extraordinary voyage. Dr Nansen decided to leave the ship, taking one companion, and to travel by sledge as near to the Pole as possible. This meant cutting themselves off from the *Fram* altogether, because she would have drifted far away by the time they returned. The splendid teams of dogs took the two explorers swiftly over rough ice, until it became so obstructed by great ridges that further progress had to be abandoned. They had then reached $88\frac{1}{2}^{\circ}$ north, the highest latitude which had, up to that time, ever been reached. The journey back was full of dangers. Sometimes the ice opened, showing "leads" or lanes of open water. They had

taken with them small "kayaks" or Eskimo boats, and crossed the leads on these. Polar bears attacked them, but they managed to reach a group of islands, east of Franz Josef Land. Here they spent the winter of 1895-6, living the life of Eskimos.

Next spring they resumed their journey to the south, having lived on the flesh of dogs, seal, and bear. A month later they reached the south of Franz Josef Land, where to their delight a relief ship was waiting. Soon after reaching Norway, the *Fram* itself arrived, having broken out of the ice just as Dr Nansen had foretold it would do. Owing to the great care which Dr Nansen had taken in arranging for the comfort of his crew not a single man was any the worse for the voyage. In his delightful book called *Farthest North* Dr Nansen has written a deeply interesting account of the whole expedition.

The journey which was finally successful in reaching the Pole was the work of Admiral Peary, of the United States Navy. Peary had devoted a great deal of time to expeditions in Greenland, and among the islands to the north of the American continent. He it was who first proved that Greenland itself was an island, for he crossed that land quite close to its northern extremity. Moreover, he studied the Eskimos closely, and thus learned much useful information about life in the Arctic regions. He won their respect, and when the time came for him to desire their help, they gave it willingly.

Although Peary had suffered much during his many expeditions, as, for example, losing eight of his toes through frostbite, he continued to make preparations for a determined attempt to reach the North Pole. For an earlier journey the *Roosevelt* had been specially built, and on his final journey, in 1908, he set out on the same ship. His book, *The North Pole*, tells a story of steady perseverance and unconquerable courage. His ship took

him to Grant Land, north-west of Greenland, and there he stayed through the winter, until March 1st, 1909.

On that date Peary started off from Cape Columbia, the most northerly point of Grant Land. He had brought a large number of Eskimos, with their families, on the *Roosevelt*, and during the winter they had hunted and helped in the preparations for the final dash. A large number of dogs, and the best of the Eskimos, started with the Americans on the sledge journey. As they passed on, parties were sent back at intervals, the weakest men and the weakest dogs being chosen for that purpose.

At last Peary, his black servant, and four Eskimos, were the only ones left. He had sledges and dogs, and a fair supply of food, when he started on the last 130 miles to the Pole. Day after day they travelled, their excitement and anxiety increasing as the chances of success appeared greater. On April 6th, 1909, the Pole was reached in a region where nothing but ice was to be seen, ice which proved to be the frozen surface of a deep sea, and not the covering of a polar continent. A rapid journey back to Cape Columbia, and an uneventful journey home in the *Roosevelt*, soon enabled the explorer to receive the congratulations of the civilized world.

CHAPTER XXXII

THE SOUTH POLE

In one particular respect the quest for the South Pole is rather a different story from the record of human effort to reach the North Pole. Far more attempts have been made in the direction of the latter than of the former, and the explorers engaged in the search for the

North Pole have only made comparatively slight progress, on each expedition, as compared with the latitudes reached by their predecessors. But although exploration towards the south has been carried out for many centuries, the final stages of the approach to the South Pole have been accomplished with great rapidity.

The reason for this is partly geographical. After the voyages of the sixteenth century, the supposed Southern Continent began to be marked further and further south on the maps. The old idea that it was linked on to Africa and South America disappeared. The voyages of the eighteenth century, especially the second voyage of Captain Cook, still further went to prove that the Antarctic Continent must be placed far to the south. This voyage also resulted in the crossing of the Antarctic Circle for the first time, in 1773.

Mention has already been made of the voyage of Ross, in the *Erebus* and *Terror*, in 1840. To him is due the credit of being the first to see the great mountains rising on the actual Antarctic Continent, south of the region of pack-ice which surrounds the continent. The position of the two volcanoes named after his two ships shows the direction of his discovery. This land he named Victoria Land, and the great ice-cliffs which rise from the sea in this region were examined for many miles.

From 1830 to 1900 a number of explorers from various European countries filled in some of the details about the Antarctic coasts and neighbouring seas, but from 1900 onwards extraordinary progress was made towards the Pole itself. In 1901 Captain Scott set out in the *Discovery* with a well-equipped expedition. Among his companions was Lieutenant Shackleton, and he had a crew of forty, nearly all of whom were sailors in the Royal Navy. King Edward Land was discovered and the first land expedition was sent southwards from the *Barrier*. In the course of

this expedition the peculiar nature of the obstacles to Antarctic exploration was experienced. These obstacles consisted largely of the absence of animal life, which might furnish food, the very low temperatures reached, and the constant blizzards. Moreover the ice was full of great cracks, or crevasses, which made travelling very dangerous. On this journey latitude $82\frac{1}{2}^{\circ}$ south was reached.

In 1908 Lieutenant Shackleton went south again in the *Nimrod*, and the account of this journey given in his book *The Heart of the Antarctic* is one of the most interesting stories of discovery ever written. He started from New Zealand, and landed a "shore-party" near Mt Erebus. Among the equipment was a motor-car, which proved of little service, and a number of ponies from Northern Asia. Some of these died very soon, but the others did some good service, although eventually all were destroyed either for food or through accident. Eventually Lieutenant Shackleton, with three others, made a dash for the Pole, taking sledges and four ponies. The course led through a mountainous region, and three of the ponies became exhausted and had to be shot. The last part of the journey led up the great Beardmore Glacier, and the fourth pony fell into a crevasse while ascending this. After a continual rise for 100 miles along the glacier the level plateau was reached. The food supplies were insufficient, yet the four men pushed on until, near 88° south they were only 97 miles from the Pole. Lack of food compelled a return, and when the party reached the *Nimrod* again they were exhausted.

It is fitting that this little book should conclude with a reference to the expedition which, more than any in the whole history of exploration, has appealed to the hearts of men of all nations, more particularly those of English-speaking peoples. The story of the discovery of

the South Pole by Captain Amundsen can scarcely be separated from the pathetic tragedy of Captain Scott's final journey, the full story of which has been graphically told by Commander Evans, and which is still fresh in all minds.

Captain Scott and his gallant companions left England in the *Terra Nova* in June 1910. Never was an expedition better fitted for the work in front of it. The men were all carefully chosen, not only for their physical fitness, but also because they were of the right character to take part in a journey where the spirit of true comradeship was to count for so much. There were dogs and ponies, and also motor sledges. Every possible scientific help was utilised in order to make the work as complete as possible in its results.

On November 29th the ship left New Zealand, having altogether sixty officers, scientists, and seamen on board. After passing through a heavy gale the icebergs began to appear in latitude 64° south. Next came nearly 400 miles of pack-ice, through which the ship forced its way into an open sea beyond. Soon McMurdo Sound was entered, and here, on Ross Island, winter quarters were built. Captain Scott took out a party from here to form a provision depôt, called "One-ton Camp," about 144 miles south of the winter quarters. On the way back a team of dogs almost disappeared down a crevasse, and they were only rescued with difficulty. On another occasion some of the party, with four ponies, found themselves on an ice-floe drifting out to sea. They were rescued, with the loss of three ponies.

In October 1911 preparations for the actual journey south were complete. Advance parties were sent on, and stores of food were placed at intervals. The ponies did good work drawing the heavy loads, but one by one they had to be shot, and were used for food. Slowly the

Beardmore Glacier was ascended, just as in Shackleton's expedition, and in December the polar plateau was reached. Here, as at other points, the party was reduced by the return of certain members to the winter quarters. About 87° south the final party, consisting of Captain Scott, Dr Wilson, Captain Oates, Lieutenant Bowers, and Seaman Evans, were left to try to reach the Pole, which was now 145 miles distant.

Soon after starting the polar party came across the tracks of Captain Amundsen and his party. He was a Norwegian who had left Norway in August 1910 with the intention of trying for the North Pole. He had journeyed in the *Fram*, Nansen's old ship, but on hearing of Peary's success in discovering the North Pole he decided to make a dash for the South Pole instead. With provisions for two years, and a splendid equipment, including dogs, Amundsen made his winter quarters at the Bay of Whales, about 400 miles further east than Scott's winter quarters. From here he made a successful dash for the South Pole, which he reached on December 16th, 1911, having been lucky in the matter of weather, but having also reaped the reward of careful preparation. The Pole itself he found to be on a snow-covered plain, "alike in all directions."

Captain Scott's party did not know of Amundsen's success, but pushed steadily on. Their disappointment must have been keen when, after great difficulties, they reached the Pole on January 17th, 1912, just a month after Amundsen left, and saw the signs of his success. "Yet," says Commander Evans, "Scott and his companions had done their best, and never from one of them came an uncharitable remark."

Starting for the long journey back to their winter quarters difficulties began. Seaman Evans fell ill, and delay resulted at a time when provisions were none too

plentiful for such circumstances. On February 17th, when the foot of the Beardmore Glacier was reached, Seaman Evans died. The cold became more intense instead of less so as the remaining four pushed north, over a very rough surface, along which only a slow rate of progress could be kept up. Then came what is one of the most heroic acts that have ever been recorded. Captain Oates was suffering from severe frostbite. He knew that he was delaying his companions. On March 17th he walked out into the blizzard, in order to save his comrades by enabling them to hurry on. "It was the act of a brave man and an English gentleman," said Captain Scott, and his words will find an echo to the end of History.

On March 21st Captain Scott, with Wilson and Bowers, reached a point eleven miles from One-ton Camp. They had two days' food supply, but were already exhausted. A camp was made, and here they died, for a terrific blizzard prevented them from setting out on the last few miles which lay between them and abundant supplies of food and fuel. Their bodies were discovered by a search party on November 12th, 1912. Captain Scott's diary, which he had kept entered up until the day of his death, gave in a few short sentences the story of their last days. His last words were on behalf of others, words of anxious thought for the dependents left behind in England, words of true appreciation of his own companions. "Had we lived," he said, "I should have had a tale to tell of the hardihood, endurance, and courage of my companions which would have stirred the heart of every Englishman." He died, but his tale has nevertheless been told to the world, and has stirred all hearts. Indeed the shining example which he and his comrades have given will be for all time a guiding star for those who tread the path of duty.

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Livingstone, *Lost Journals*. 2 vols. Murray. 28s.

Lucas, *Historical Geography of the British Colonies*. 8 vols. Oxford University Press. Various prices.

Lucas, *Origin and Growth of the British Colonies*. Oxford University Press. 2s. 6d.

Markham, *Franklin*. Philip. 3s. 6d.

Markham, *John Davis*. Philip. 3s. 6d.

Mawer, *Vikings*. Cambridge University Press. 1s. net.

Mill, *Siege of the South Pole*. Rivers. 7s. 6d.

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Woodward, *Expansion of the British Empire*. Cambridge University Press. 4s.

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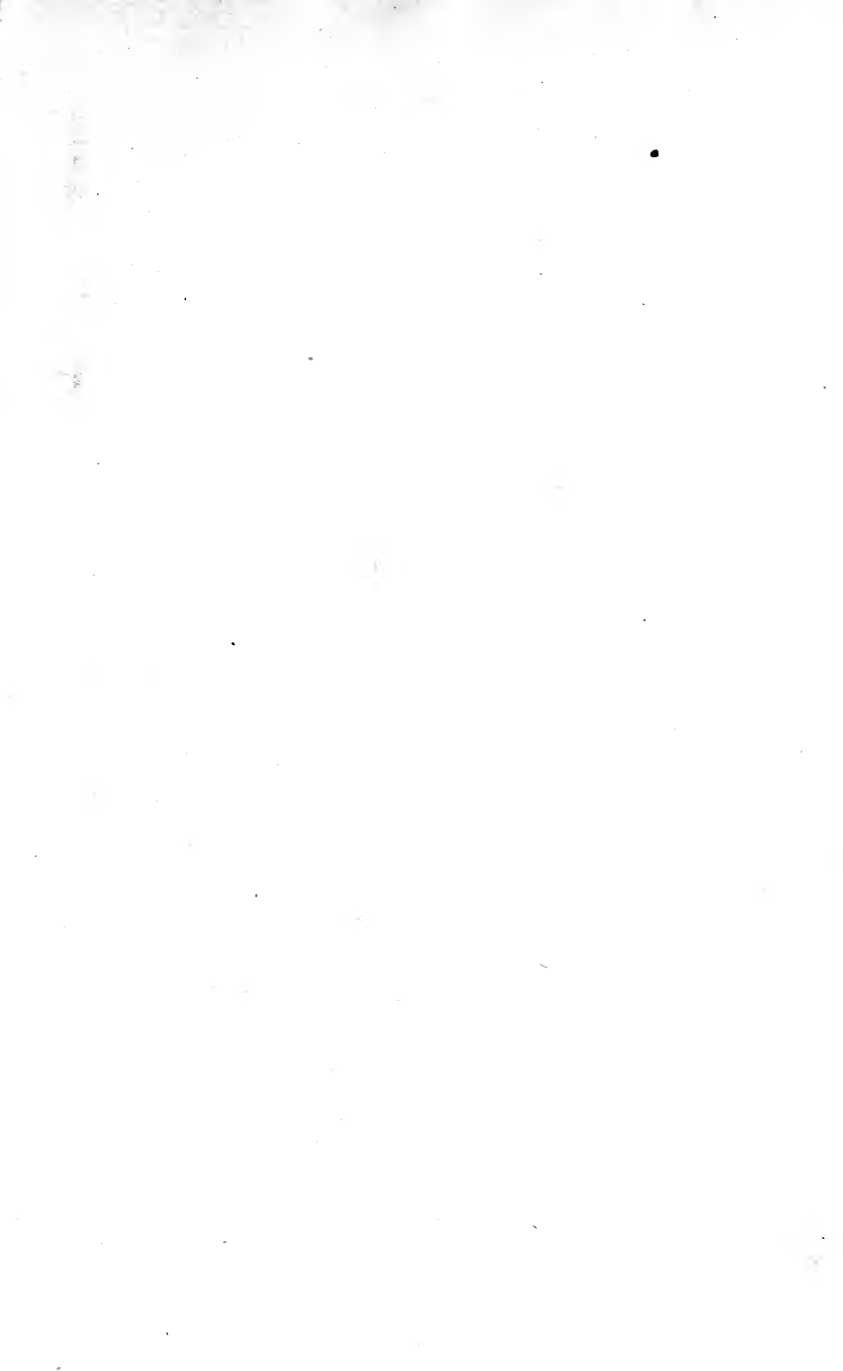
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